Size of Business

Why do firms grow ? (Motivations for growth)

1) To increase market share :
   Firms may wish to increase market share and enhance market domination because it will give them greater pricing power. This market power may act as a barrier to entry for new businesses in the long run.

2) To benefit from economies of scale :
   Large firms are able to enjoy the benefits of economies of scale through lower LRAC as they increase their scale of production. This will allow them to achieve greater productive efficiency.

3) Profit motive :
   Businesses grow to achieve higher profits and provide better returns for shareholders. If a company has lower sales and profits, it can lead to fall in share prices which opens up the risk of a hostile takeover and makes it more expensive to raise finance by issuing new shares.

4) Risk motive :
   Large firms are able to spread business risk by producing a wide range of products and operating in different markets.
   This will compensate for falling sales in one market with stronger demand in another sector and help to withstand downturns in the economic cycle.

5) Managerial motive :
   Some managers will seek to grow their businesses so that they can satisfy their desire to run a successful business, see share prices rise if they receive shares as a part of their remuneration, or leave a legacy of growth after they have left.

Business growth :

a) Organic growth :
   When a business grows internally by investing within the firm. E.g purchasing new capital equipment

b) External growth :
   - Takeover - Where one business acquires a controlling interest in another business.
   - Merger - When two firms agree to combine together and create a new firm

Types of merger :

1) Horizontal Integration :
   Merger between firms at the same stage of production and in the same industry.
   Example - merger between two banks

2) Vertical Integration :
   A merger between firms who are in the same industry but at different stages of the production process.

   - Backward vertical integration :
     Merger with a firm that is closer to the suppliers in the production process.
     Example - a chocolate manufacturer merging with a cocoa plantation
   - Forward vertical integration :
     Merger with a firm that is closer to the customers in the production process.
     Example - an oil refinery purchasing a chain of petrol stations

3) Conglomerate integration :
   Merger between firms that are in unrelated industries. E.g. Nestle

Advantages of Organic Growth :

1) Organic growth is less risky than merger or takeover as the risk of diseconomies of scale is lower. Merger or takeover can be unsuccessful if they are in unfamiliar markets.

2) It allows firms to grow by building upon their strengths such as brands, focusing on customer base and effective planning.

3) Existing shareholders retain their control over the firm, which might reduce conflicts in objectives or potential cultural clashes that may occur when there is a takeover.

4) It is unlikely to attract the attention of the regulators due to small scale operations and less likelihood of abusing market power.

5) Organic growth is cheaper as it is often financed through internal funds such as retained profits. This means that the firm is not building up debt. Acquisitions may be expensive and it could take a long time to recoup the costs.

Disadvantages of Organic Growth :

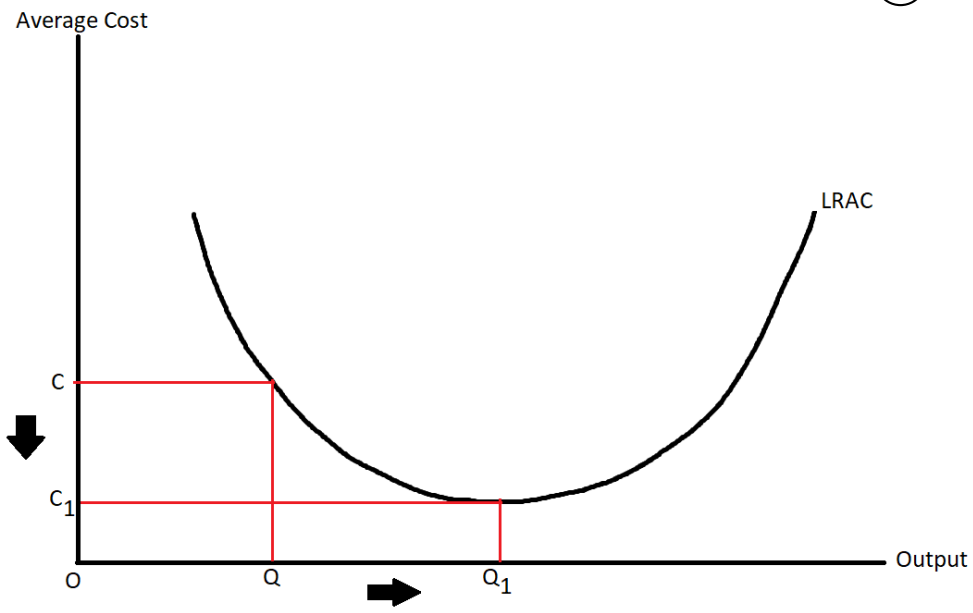
1) This is a long term strategy and is significantly slower than mergers or takeovers. Competitors may gain more market power by expanding in the meantime which can make shareholders unhappy.

2) It is harder to build market share if business is already a market leader. → need inorganic growth to expand more

3) Growth achieved may be dependent on the growth of the overall market. This could limit how much and how fast the firm can grow.

Impact of growth of firms (mergers) on businesses :

1) As a means of expansion, external growth is quicker than organic growth. This may allow firms to achieve economies of scale, acquire valuable brands, get access to new patents and markets. ① ② ③



Following the merger, output rises from OQ to OQ_1 and LRAC falls from OC to OC_1

2) The firm may remove duplicated activities which can reduce large costs and make the firm more efficient.

3) Mergers lead to increased market share, greater market domination and more control over pricing. Thus supernormal profits may be higher.

4) Vertical integration creates an entry barrier as firms have greater control over the supply chain or distribution channels.

5) The merged firm may benefit from synergies such as cost savings and growth opportunities that occur as a result of the shared resources and expertise of the two companies.

Evaluation :

1) The merged firm may grow beyond its MES and become difficult to control resulting into diseconomies of scale. As firms expand globally, communication often becomes difficult due to language and cultural differences.

2) The initial costs of the merger may be very costly and may take years to recover. The danger of overvaluation is that it puts huge financial pressure and the firm may aggressively try to reduce costs after the merger resulting into lower efficiency.

3) The takeover bid process is complex and lengthy as it may sometimes need approval from many countries and international competition authorities. There are also high legal and administrative costs especially if it is subject to legal challenge under antitrust laws.

4) The merger may be blocked by one or more competition authorities if the combined market share is considered to be too high.

Impact of growth of firms (mergers) on consumers :

1) Economies of scale and other synergies mean lower LRAC. These cost savings may be passed onto consumers in the form of lower prices thus increasing consumer surplus.

2) With higher profits, firms will have larger budgets for R&D and thus bring more innovative products onto the market which increases consumer choice. Such efficiency gains may lead to improvement in quality of service.

3) Governments may also set tighter controls on the merged firm to reduce the ability of monopoly power and environmental costs.

Evaluation :

1) Greater market power might lead to consumer exploitation through higher prices, lesser choice and poor quality products.

2) There is also a time lag in realizing the benefits. For example - the benefits from R&D may occur in the long run.

Impact of growth of firms (mergers) on employees :

1) Large firms tend to be more profitable than small firms and so employees have more job security.

2) Large firms tend to offer higher wages and there is also a greater scope for promotion.

3) Employees will receive various training opportunities which will strengthen individual career progress/goals.

Evaluation :

1) Duplication of jobs means that some workers will lose their jobs.

2) Employees may find it difficult to adapt to different management practices leading to cultural clashes. All these can lower worker morale and reduce productivity.

3) If workers are highly skilled, then factory closure could cause occupational immobility of labor in the sector. This may cause long-term unemployment.

Demergers :
Demergers occur when firms sell off a part of the business and split into two or more independent businesses. Example - Lloyds TSB Banking Groups demerging to create two separate banks; TSB & Lloyds Bank.

Reasons for Demergers :

1) To avoid or reduce the impact of diseconomies of scale :
    - To achieve lower LRAC as the business was previously experiencing diseconomies of scale.
    - Expected synergies from the merger did not occur - hence the firm may reduce its LRAC by demerging
    - The business was experiencing cultural clashes - different leadership approaches, working practices - especially if sections of the business are operating in different economies.
    - Business expects to increase profit (or reduce loss) as a result of lower LRAC.

2) To create a more focused firm by concentrating on their specialist area and maximizing economies of scale.

3) The business has sold off parts which were of higher risk - e.g scaling down operations in countries which are economically or politically unstable.

4) The business experiences an increase in funds through the sale of assets - which may be used to invest in R&D or to pay off debts.

5) The business may avoid intervention from competition authorities if it was becoming too dominant in certain markets.

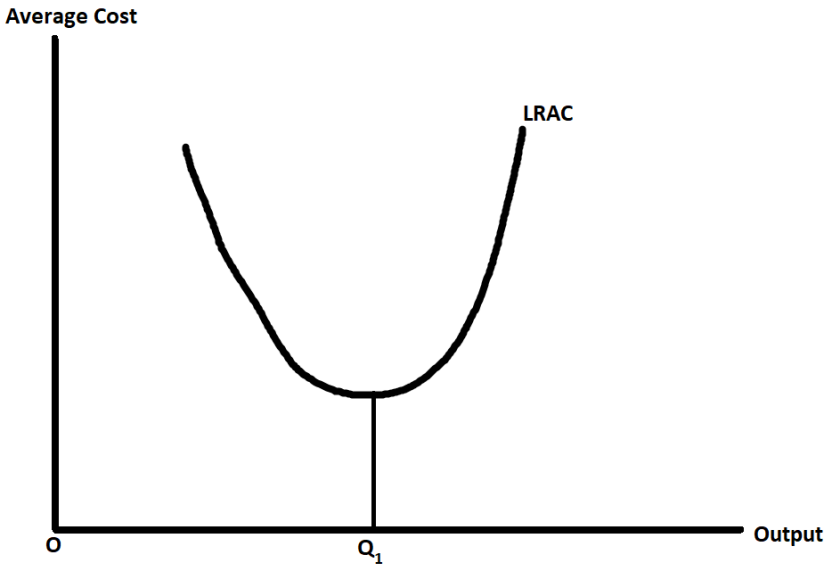
Constraints on Business Growth

Reasons why some firms stay small :

1) Niche market :
   Niche market is a specialized sub-section of the market with unique customer needs and in which potential profits can be made. Since there is limited demand for these products, the market size is small and so firms do not need to grow large. For example - luxury sports cars.

2) Lack of access to finance or resources to get bigger :
   Small firms often find it difficult to obtain the finance for investment and growth. They have relatively small amounts of retained profits and banks are usually less willing to give them loans as the value of their assets is low making them riskier than established firms.
3) Objectives of the owner :
   The owner of the firm may lack the knowledge or expertise to expand. They may be satisfied with keeping the business small as growth is risky, expensive and time-consuming.

4) To avoid diseconomies of scale :



A firm may reach minimum efficient scale at a relatively low level of output at OQ_1. Any growth in size and output beyond OQ_1 means that the small firm is less efficient and experiences diseconomies of scale.

5) The macroeconomic climate :
Businesses may choose to delay expansion if they see that the economy has poor growth prospects which may reflect poor consumer purchasing power and demand. Other macroeconomic factors such as high inflation, high unemployment rates or unstable political environment will also increase uncertainty and reduce investment.

Evaluation :

1) Government policy towards small businesses may play a vital role in promoting small businesses. It can include measures such as tax concessions, advice and putting pressure on the banking sector to encourage small businesses.

2) Macroeconomic indicators such as poor economic growth forecast may be a key factor in the short run as potential sales may be low. However, in the long run a niche market could be more significant.
3) Owner's objectives are likely to be a major factor in determining the growth of the small business. Some entrepreneurs may prefer aggressive expansion while others may prefer to remain small.

Conclusion : It is difficult to assess whether a single factor is the constraint on growth for a firm. In reality a combination of factors may limit a firm's expansion.

③ REVENUE

Revenue :

Revenue (turnover) is the income generated from sales.

$$\text{Total Revenue} = \text{Price X Quantity}$$

$$\text{Average Revenue} = \frac{\text{Total Revenue}}{\text{Quantity}}$$

Marginal Revenue :

Marginal Revenue is the addition to total revenue from selling one more unit of output.

$$\text{Marginal Revenue} = \frac{\Delta TR}{\Delta TQ}$$

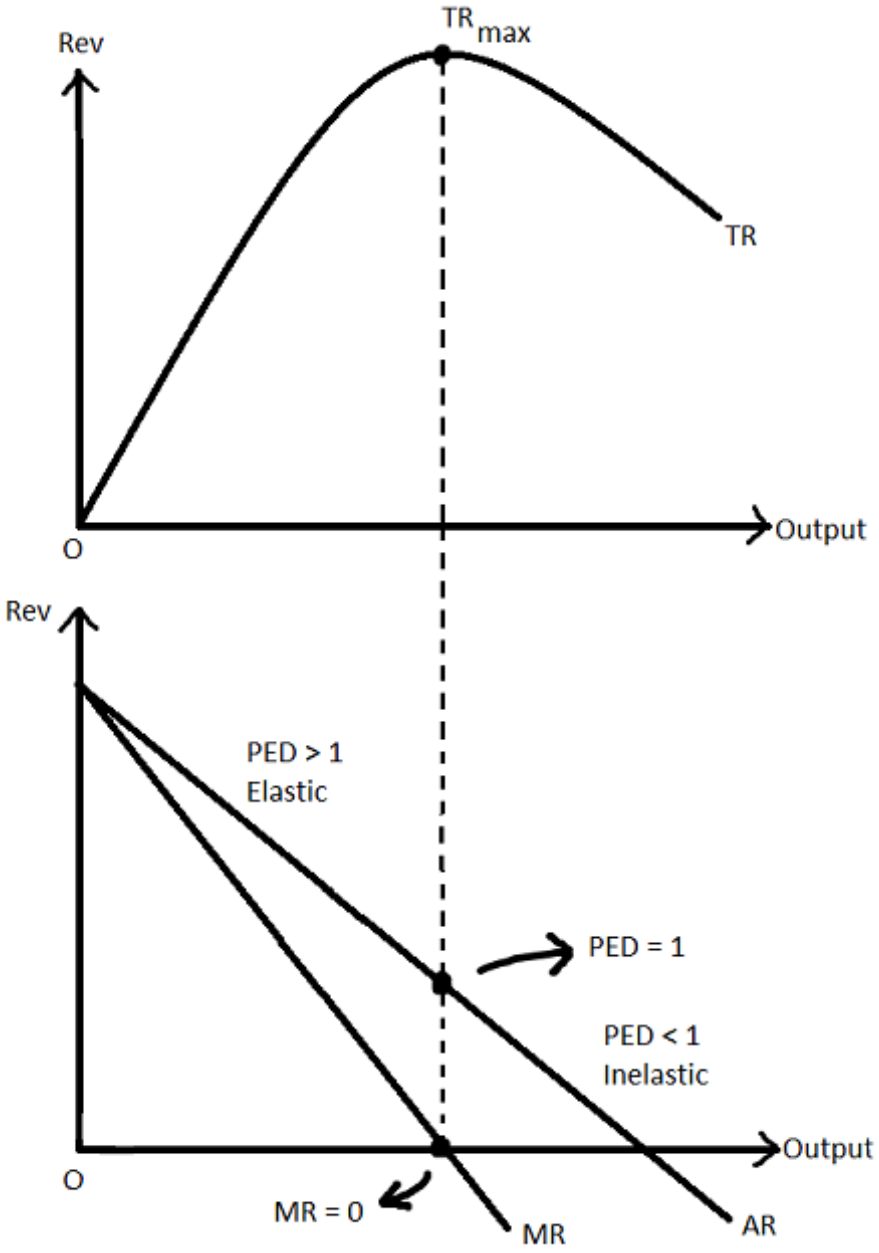
Price	Quantity Demanded	Total Revenue	Marginal Revenue
10	1	10	10
9	2	18	8
8	3	24	6
7	4	28	4
6	5	30	2
5	6	30	0
4	7	28	-2
3	8	24	-4
2	9	18	-6
1	10	10	-8

Revenue Maximization :

Occurs at the output level where MR = 0

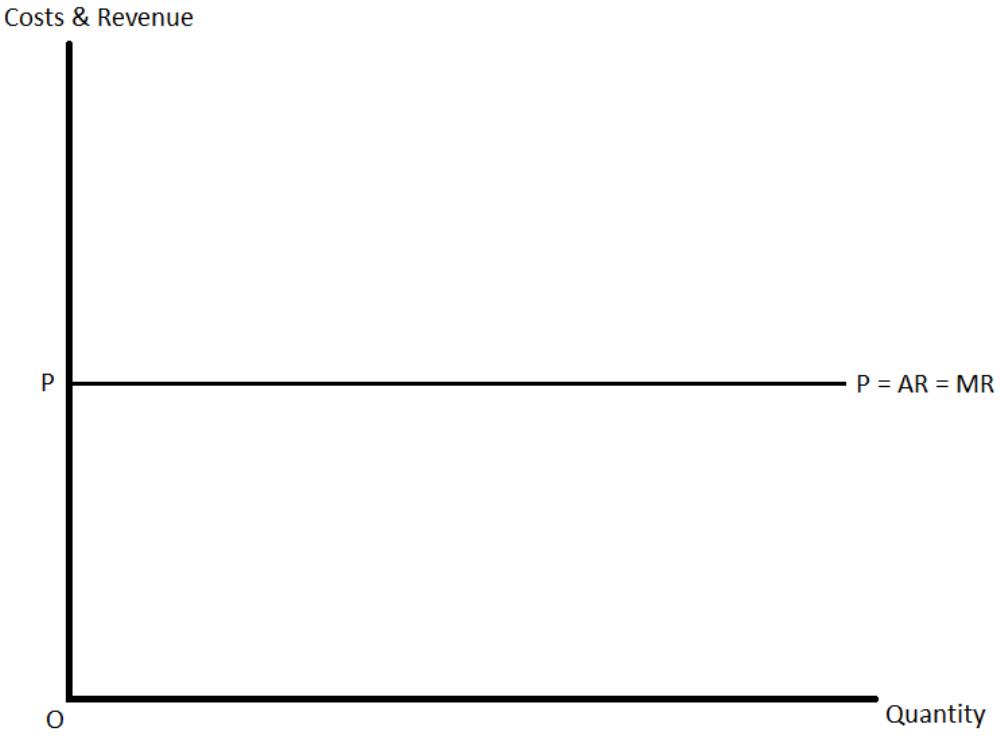
Price elasticity of demand and its relationship to total revenue :

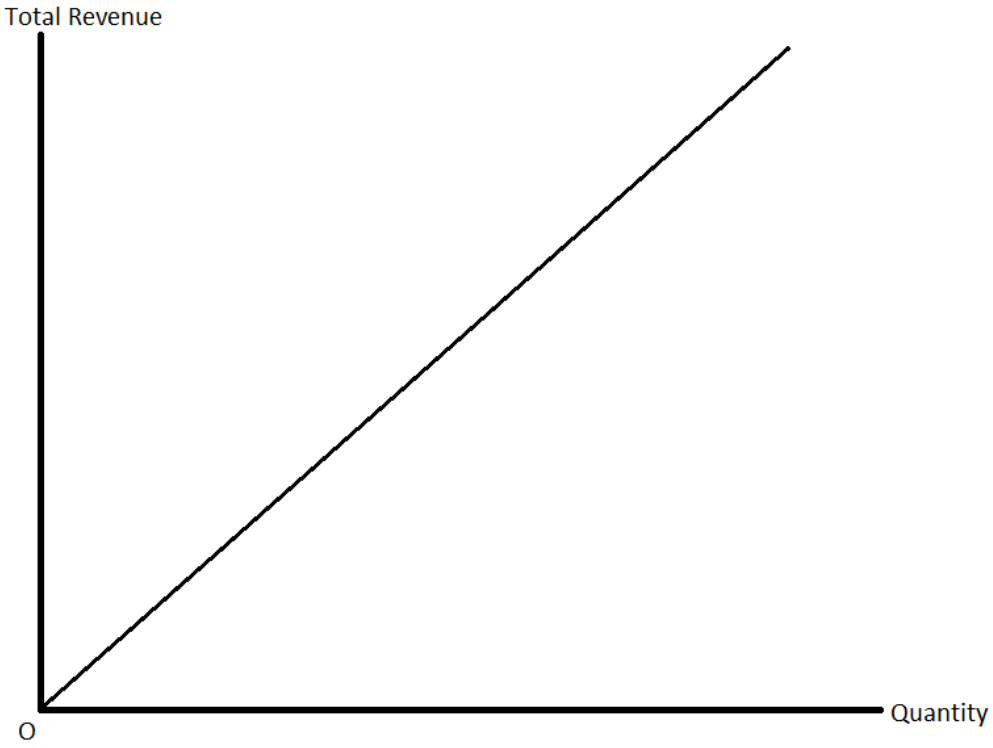
- A fall in price in the price elastic region of the AR curve will increase TR as MR is positive.
- A fall in price in the price inelastic region of the AR curve will decrease TR as MR is negative.



Revenue maximization occurs at MR = 0. It is also where PED = 1 on the AR curve.

Revenue Curves - Perfect Competition :





④ COSTS

Short-run :
Short-run is the time period when at least one of the factors of production is fixed (e.g. capital). Labour is typically regarded as a variable factor.

Long-run :
Long-run is the time period when all factors of production are variable and it is possible for the firm to move to a new scale of production.

Measuring changes in output :

- Total Product (TP) : total output a firm produces over a given time period
- Average Product : output per unit of input
- Marginal Product (MP) : It is the extra output from employing an additional worker.

Law of diminishing marginal productivity/returns :
The law of diminishing marginal productivity (returns) states that as increasing units of a variable factor (labor) are added to a fixed factor (e.g. capital), the marginal product of the variable factor will eventually fall.

Variable Input : Labor	Total Product (TP)	Marginal Product (MP)
0	-	-
1	500	500
2	1500	1000
3	3000	1500
4	4000	1000
5	4500	500
6	4750	250
7	4750	0
8	4500	-250

- At first there are increasing returns to labor, so total product increases at an increasing rate.
- Diminishing marginal productivity occurs when the 4th worker is employed.
- Total product will still be increasing but a decreasing rate.

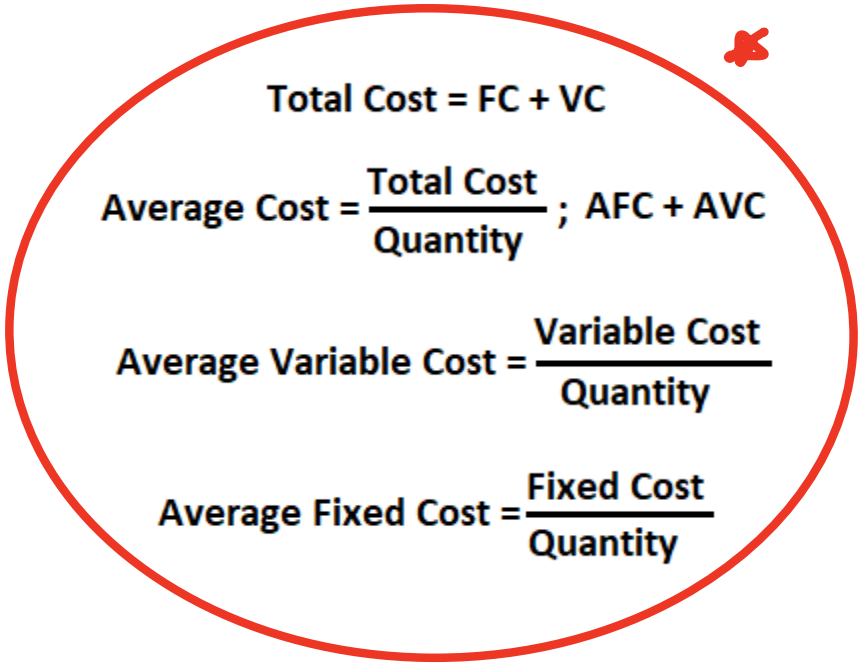
Costs in the short-run :

- Fixed Costs :
  Costs that do not vary with output. E.g. rent, loan repayment.

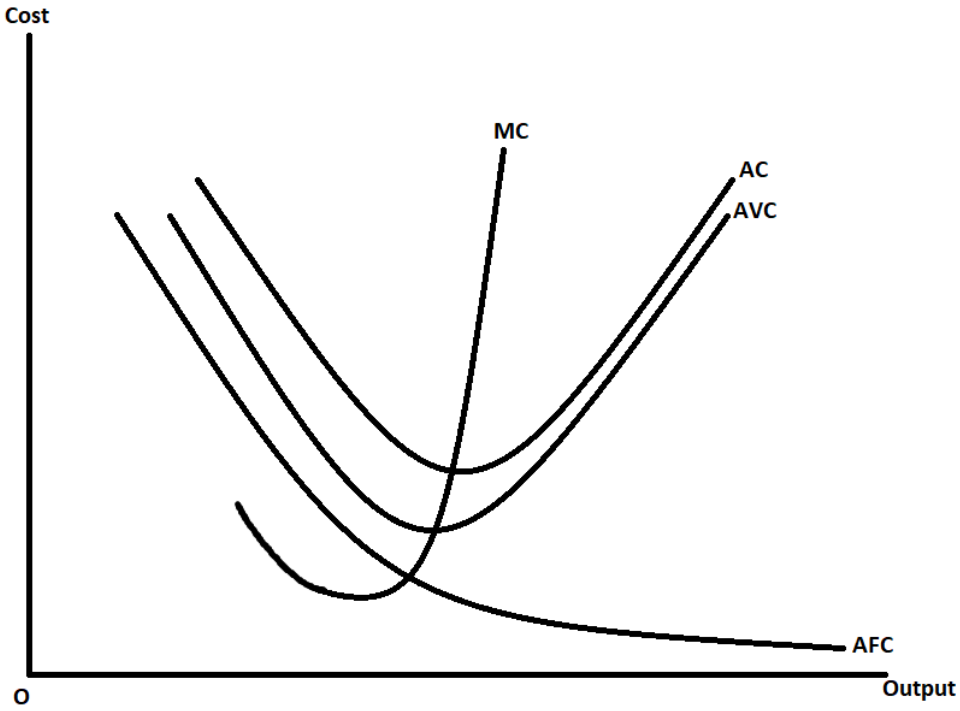
- Variable Costs :
  Costs that do vary with output. E.g. raw materials, wages.

- Marginal Cost :
  The cost of producing an additional unit of output.

$$MC = \frac{\Delta TC}{\Delta Q}$$


Total Cost = FC + VC
Average Cost = Total Cost / Quantity ; AFC + AVC
Average Variable Cost = Variable Cost / Quantity
Average Fixed Cost = Fixed Cost / Quantity

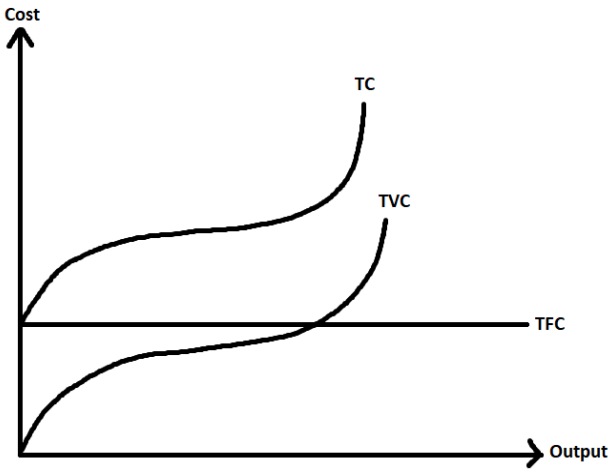
Derivation of short-run cost curves from the law of diminishing marginal productivity :



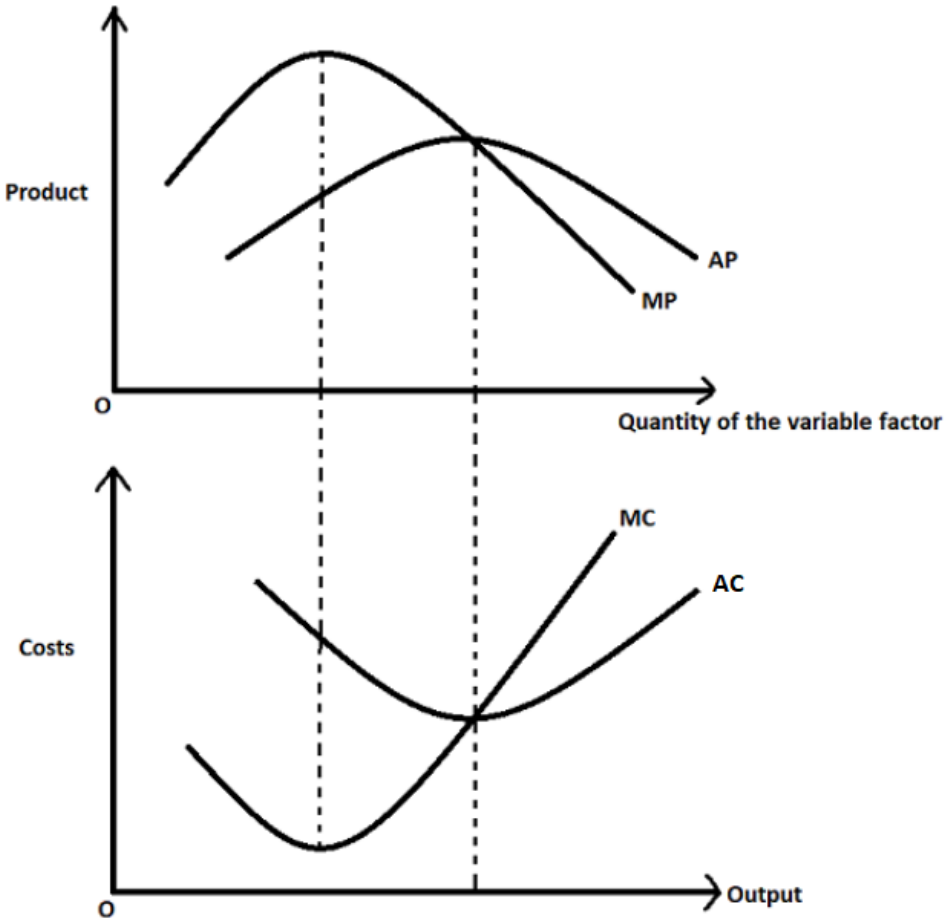
Short-run cost curves are U shaped.

Marginal cost-curve initially slopes downwards because of increasing returns to labor but it begins to rise once the firm experiences diminishing marginal returns.

- As MC increases, it will subsequently cause AVC and AC to rise.
- If MC < AC, then AC falls
- If MC > AC, then AC rises
- MC always goes through the minimum point of AVC and AC
- AFC falls as more units are produced. Thus the gap between AC and AVC is always diminishing.



Relationships between Product and Cost Curves :



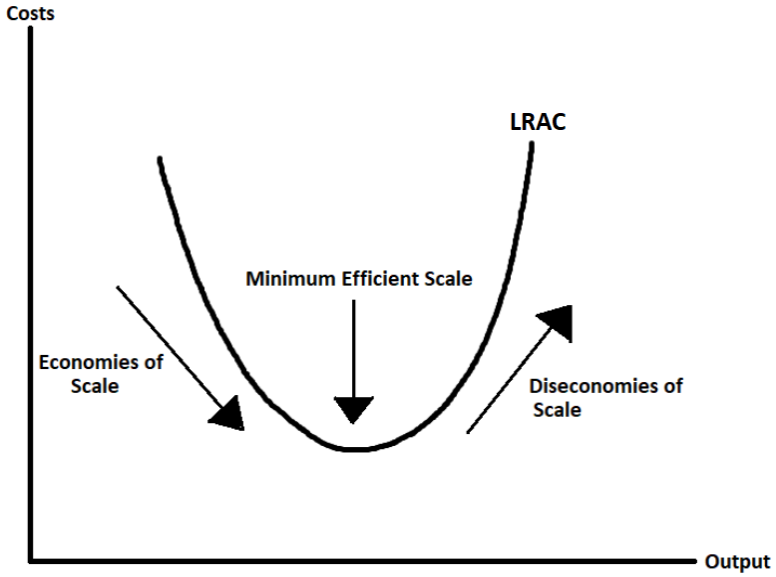
Marginal Product and Marginal Costs :

- When MP ↑ → MC ↓
- When MP ↓ → MC ↑

Average Product and Average Costs :

- When AP ↑ → AC ↓
- When AP ↓ → AC ↑

Long-run cost curves :

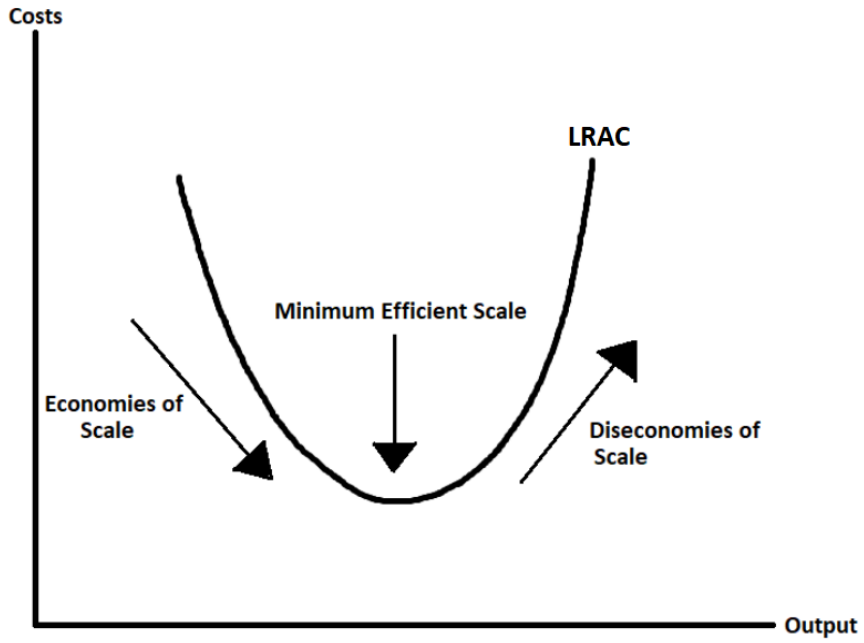


In the long-run all costs are variable and therefore the U shaped LRAC curve can be explained by economies and diseconomies of scale.

The long-run AC curve is an envelope curve as it contains within it all the associated short-run average cost curves.

ECONOMIES OF SCALE

Economies of Scale :
It refers to the falling long run average costs associated with an increase in the scale of production.



Internal Economies of Scale :
It refers to lower LRAC associated with an increase in output of an individual firm.

Causes of internal economies of scale :

1) Technical economies :
    - Specialization : Large scale production makes it viable to use specialist capital machinery and division of labor. This would make the firm more efficient and thus reduce LRAC.
    - The law of increased dimensions : Doubling the dimensions of a lorry, container or warehouse increases its volume by eight times. This makes storage and distribution costs cheaper per unit.

2) Purchasing economies :
   A large firm can purchase its inputs in bulk at discounted prices if it has monopsony (buying) power. [Bulk discount]

3) Marketing economies :
   A large firm can spread its advertising and promotion costs over a large number of units. Thus cost per unit falls.

4) Managerial economies :
   Large firms can afford to employ specialist managers in finance, sales or operations to supervise the production system. This can increase productivity and decrease LRAC.

5) Financial economies :
   Large firms can easily get loans from banks at cheaper borrowing rates since they offer greater security. They can also raise finance by issuing shares.

6) Risk bearing economies :
   Large firms have a wider product range and sell in many markets. This enables them to spread the risks of trading and minimize the impact of any downturn.

External Economies of Scale :
It refers to lower LRAC enjoyed by all firms due to the expansion of the industry.

Causes of external economies of scale :

1) Skilled labor :
   A pool of skilled labor builds up in the area making it easier for all firms to recruit workers. It also lowers training costs.

2) Access to suppliers :
   Ancillary firms such as component suppliers, banking and other support businesses are likely to set up close to the industry resulting into cost savings for all the firms.

3) Access to transport links :
   The growth of an industry will lead to the development of roads and transport links needed by the industry. This will make transportation and communication easier.

4) Sharing knowledge :
   Firms in the same industry who are located nearby are likely to share information and ideas which may benefit everyone.

Diseconomies of scale :
It refers to rising LRAC when a firm grows too large and moves beyond its minimum efficient scale.

Causes of diseconomies of scale :

1) Lack of control :
   Large firms are difficult to control and coordinate. Monitoring the productivity and the quality of output from thousands of employees across several plants in big corporations is imperfect and costly.

2) Communication :
As a business expands its chain of command increases which makes communication slow and more likely for errors to occur. As firms expand globally, communication may become difficult due to language and cultural differences.

3) X-inefficiency :
Lack of competition for a large firm may mean that they do not have incentives to cut costs and they waste resources.

6 PROFIT

Profit :
Profit is the difference between total revenue and total cost.

Marginal Profits :
Marginal profit is the additional profit from selling one extra unit.

Output	Marginal Revenue (£)	Marginal Cost (£)	Marginal Profit (£)	Total Profit (£)
1	10	10	0	0
2	10	6	4	4
3	10	3	7	11
4	10	6	4	15
5	10	10	0	15
6	10	13	-3	12

Profit maximization occurs at the output level where MC = MR

- Normal Profit :
Normal profit is the minimum reward required to keep resources in their current use.
It is earned when total revenue = total costs (TR = TC)

- Super-normal Profit :
Supernormal profit occurs when TR > TC.

7 Types of Businesses & their Objectives

Types of Businesses :

A) State-owned enterprises/Public Sector :
Refers to organizations that are owned and controlled by the government (the state).

The composition of the public sector varies by country, but in most countries the public sector includes government departments such as education, healthcare, law & order, defense, local and central government bodies and their departments.

There are also a range of more commercially oriented public sector organizations such as transport, postal services and utilities.

Objectives of Public Sector firms :
The main objective of the public sector is to maximize social welfare.

- Public sector firms will aim to fulfill the basic needs of a country's citizens by providing services through its education and healthcare institutions. This will increase the human capital and life expectancy of its citizens. Similarly, the need for shelter is met through housing facilities provided by the public sector.

- They will ensure that the citizens of the country live in a safe and secure environment through the provision of defense and law & order, such as police.

- Furthermore, the government will aim to stabilize the economy to encourage investment, employment and improve the living standards of its citizens. This is done by aiming to fulfill macroeconomic objectives such as low unemployment, price stability, sustainable economic growth.

- Lastly, in commercially oriented organizations such as gas and electricity, the main objective may be to ensure that there is sufficient supply of the good or service at an affordable price and a profit objective may also be apparent for long term survival.

B) Private Sector :
Private sector is any non-government owned business organization.
Private sector includes :
- For-profit organizations : Companies who aim for profit maximization. E.g Google
- Not-for-profit organizations : Charities that have the goal to meet certain social objectives. E.g Oxfam

Types of private sector organizations :

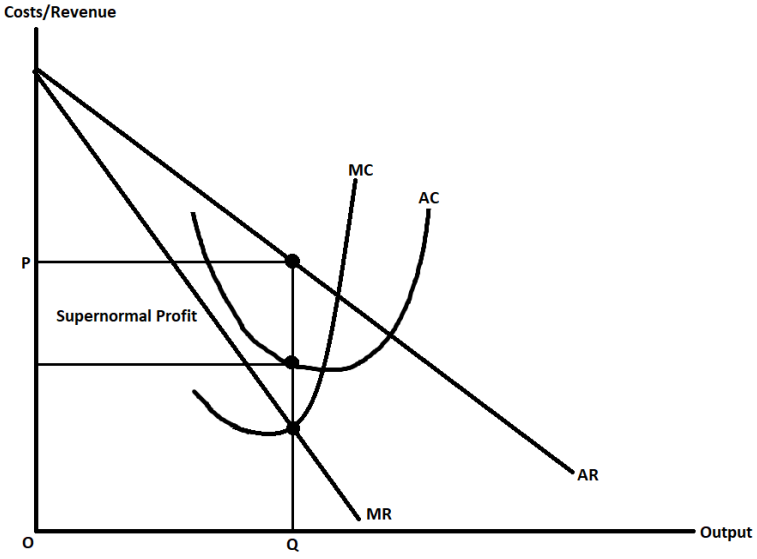
1) Sole trader : owned and controlled by one person
2) Partnership : two or more people own the business

3) Limited/Joint Stock Company : owners are its shareholders
    - Private Limited Company : shares are owned by family members and friends
    - Public Limited Company : shares are traded freely on the stock exchange

4) Co-operatives : Co-operatives are owned, controlled and operated for the benefit of their members. E.g producer co-operatives, consumer co-operatives.
5) Joint Ventures : A joint venture occurs when two or more businesses join together to pursue a common project by sharing their resources.

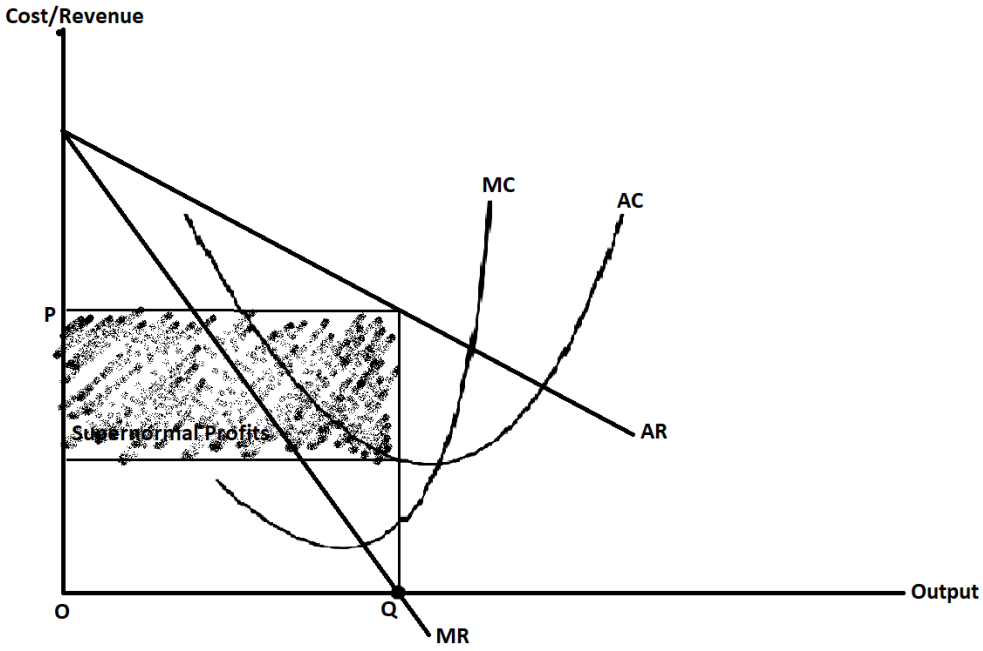
Objectives of Private Sector firms (for-profit organizations) :
The prime objective of most private sector organizations is to make a profit.
This may be achieved through profit maximization or profit satisficing.

1. Profit Maximisation :
   Profit maximization occurs at the output level where MC = MR
   At this level of output the difference between total revenue and total cost is the greatest.

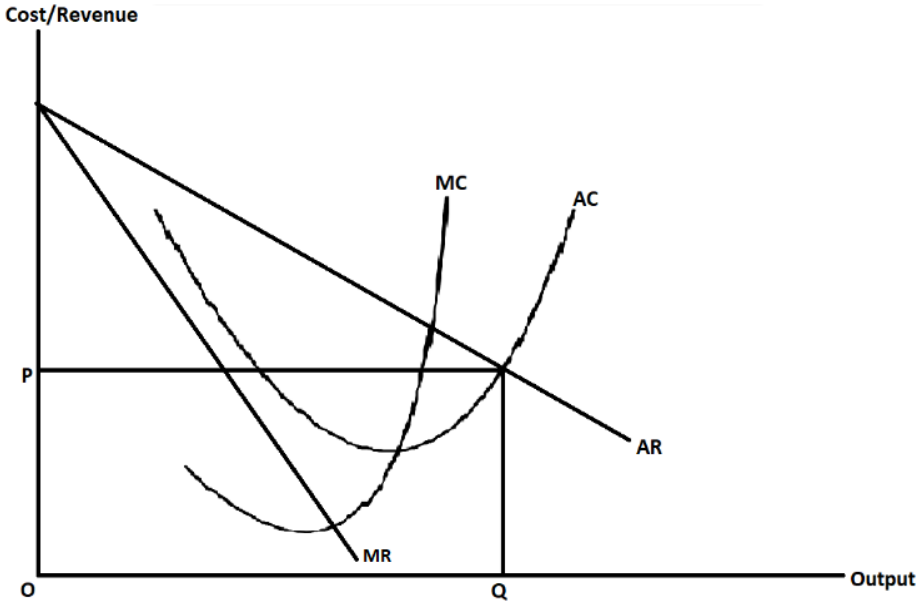


2. Profit Satisficing :
   Different stakeholders of a company tend to have different objectives due to the divorce of ownership from control (principal-agent problem). Profit satisficing is where a firm aims to earn sufficient profits to satisfy the shareholders. E.g enough profits to pay for dividends. Once these demands have been met, managers would be free to maximize their own rewards from the company such as revenue maximization since their salaries and other benefits depend upon it.

3. Revenue Maximization :
   Revenue maximization occurs at the output level where MR = 0



4. Sales Volume Maximization :
   It occurs at the output level where AC = AR.
   The firm attempts to sell as much as it can without making a loss.



Firms may undertake sales maximization :

- To gain market share and/or to drive a rival out of the industry.
- To discourage entry of new firms since normal profit will discourage firms to enter the market.

Significance of the divorce of ownership from control (the principal-agent problem) :
The divorce of ownership from control refers to a situation where the owners of a firm (shareholders) are not involved in the day-to-day running of a business which is rather controlled by managers/directors.

The principal agent problem occurs when the agent (managers) makes decisions for the principal (shareholders) but the agent is inclined to act in their own interests, rather than those of the principal. For example, shareholders and managers having different objectives which might conflict. Shareholders are more likely to desire maximization of profit. They tend to want good returns in the form of dividend payments and a rising share price.

On the other hand, managers may be more focused on growth objectives, increasing revenue which leads to higher bonuses, prestige and status rather than maximizing the dividends of the shareholders.

The presence of the principal agent problem is likely to be more pronounced in larger business organizations such as large PLCs, TNCs.

Evaluation :

1) Shareholders may also prefer to see short term company growth rather than short term profit gains.

2) Firms may use incentives for managers such as profit related pay, share schemes, bonuses in order to focus on achieving profit maximization.

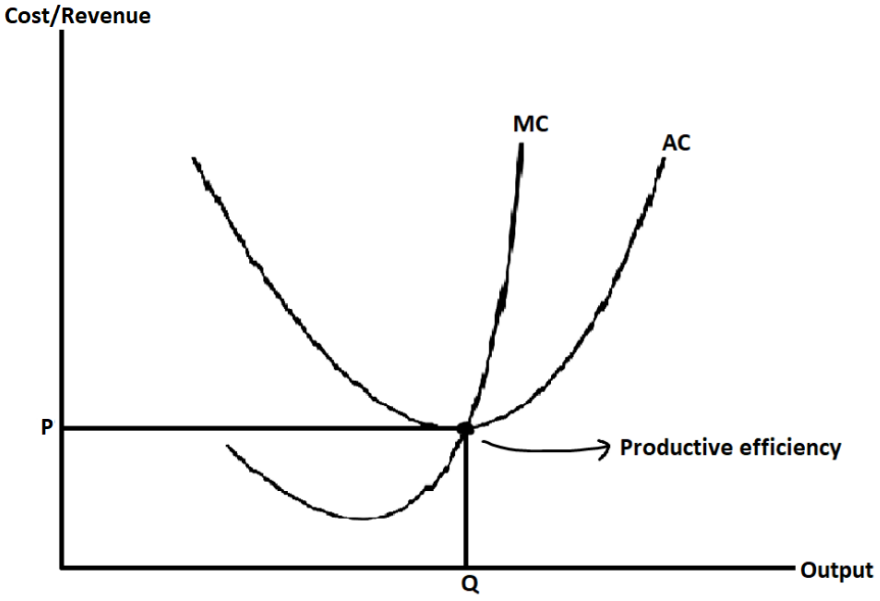
3) Directors and senior managers may be major shareholders and so there may not necessarily be a divorce between ownership from control.

4) The private sector also includes co-operatives, and not-for-profit organizations. Here, the divorce between ownership from control may not be as significant as the owners aren't likely to seek higher profit levels and have more social objectives.

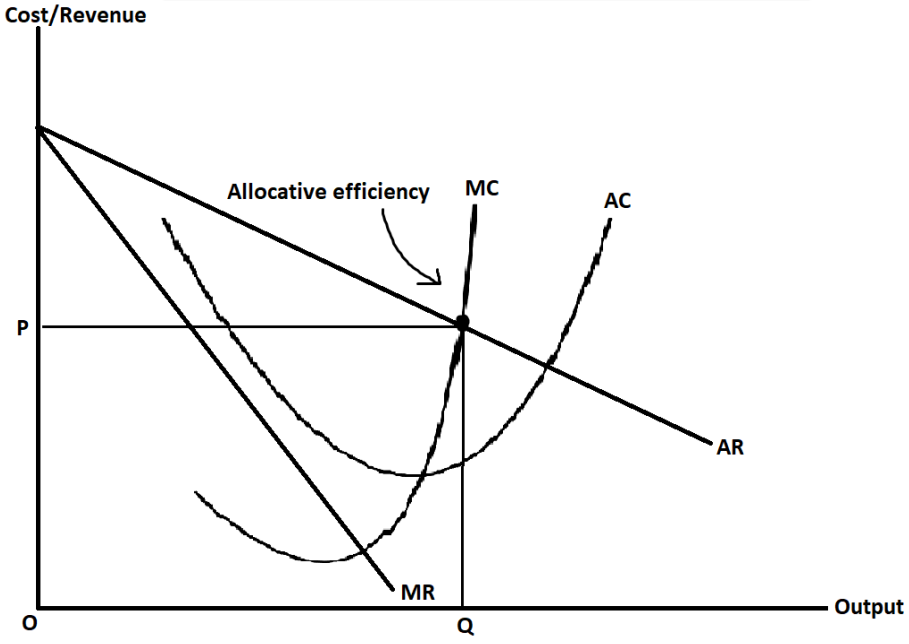
8 EFFICIENCY

Types of efficiency :

1) Productive efficiency :
   It is achieved when a firm operates at the lowest point of the average cost curve; where AC = MC



2) Allocative efficiency :
   Allocative efficiency occurs where Price = Marginal cost (MC = AR)



3) X-inefficiency :
   This occurs when firms do not have incentives to cut costs due to lack of competition.

4) Dynamic efficiency :
   This occurs when resources are allocated efficiently over time. E.g. training workers, spending on R&D

9 BARRIERS TO ENTRY & EXIT

Barriers to entry :

1) Economies of scale :
   If existing businesses have managed to exploit economies of scale and developed a cost advantage, they can cut prices when new firms enter the market. Thus, the new entrant will incur losses and may be forced to leave the market.

2) Patents :
   Patents can prevent competitor firms copying a product for a given number of years after its invention. They provide the incentive to invest and innovate without the fear of competition. This makes it possible for oligopolists to maintain their dominant position in the market.
3) Legal barriers :
   The government may give a firm exclusive rights to the production of a product.

4) Branding :
   Increased spending on advertising and marketing by large firms can create a powerful brand image. Branding creates brand loyalty which makes it difficult for new firms to enter the market and compete with large firms.

5) Artificial entry barriers :
   For example, deliberate use of anti-competitive practices such as predatory pricing, limit pricing or collusion.

6) High setup costs

Barriers to exist :

1) Sunk Cost :
   These are the costs which a firm cannot recover on exiting the industry. Example : Advertising expenditure.

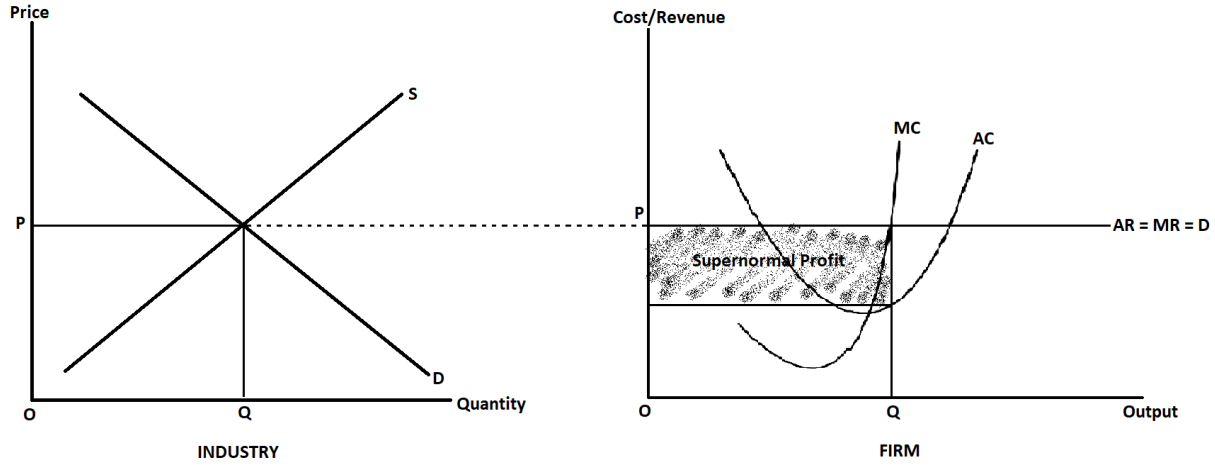
PERFECT COMPETITION

Market characteristics :

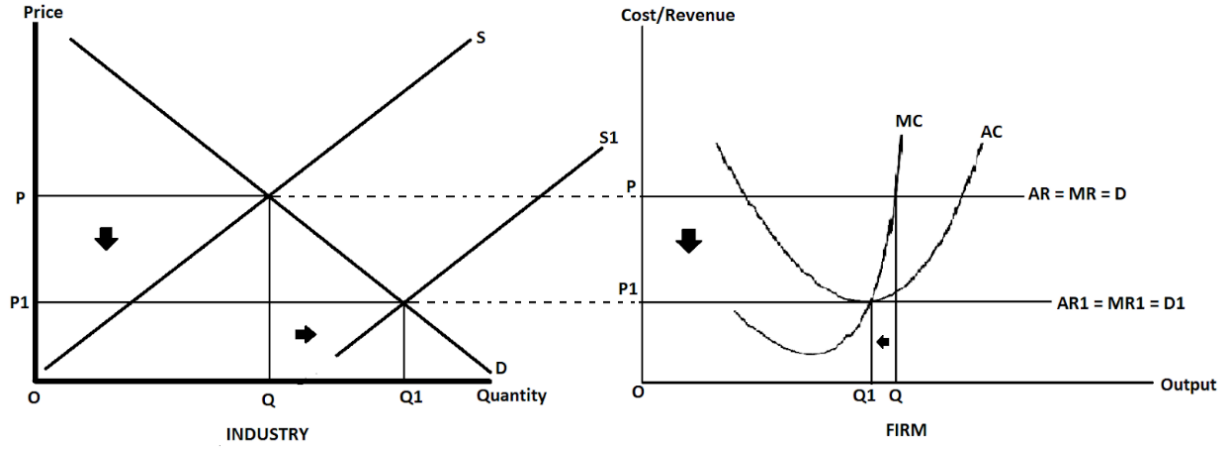
1) Many small buyers and sellers
2) No barriers to entry or exit
3) Firms produce homogeneous products. Therefore, there is no branding or use of non-price competition.
4) Each firm and consumer has perfect knowledge of market conditions.
5) Firms are price takers and so the firm's demand curve is perfectly elastic where AR = MR. No single firm can influence the market price.

Short-run equilibrium :

- Firms will produce at MC = MR as they are assumed to be profit maximisers.
- Firms are allocatively efficient but not productively efficient in the short-run.



Long-run equilibrium :



- Short-run supernormal profits will attract new firms into the market. This is possible since there are no barriers to entry and there is perfect knowledge.

- The entry of new firms will increase the supply from S to S_1 establishing a price just low enough for firms to make normal profits (P to P_1). New firms will continue to enter the industry until all supernormal profit is competed away. i.e. only normal profit is earned.

Efficiency in the long-run :

- Allocative efficiency is achieved since equilibrium occurs where P = MC
- Productive efficiency is achieved since equilibrium occurs where AC is minimum. i.e. AC = MC

Evaluation :

1) Perfectly competitive firms achieve both allocative and productive efficiency in the long run and so consumer welfare is maximized. However, there is absence of productive efficiency in the short run.

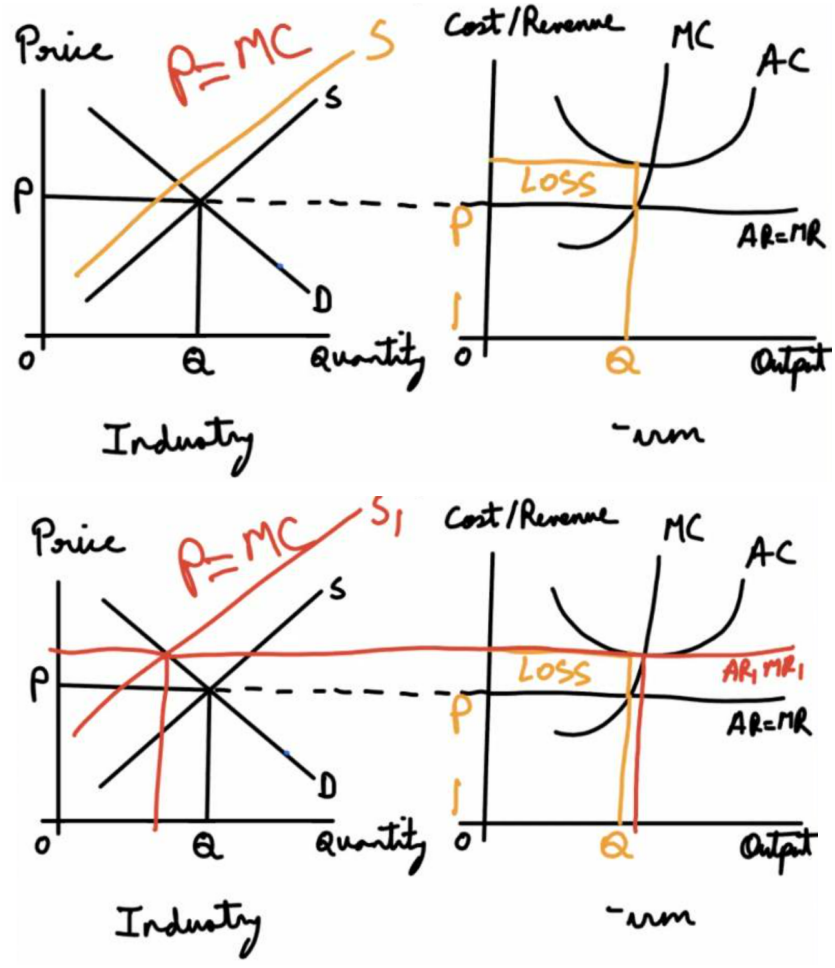
2) Since there are many small firms, they do not produce on a large scale and so are unable to exploit the benefits of economies of scale.

3) The model of perfect competition requires the existence of a number of highly unrealistic assumptions and so such markets might not even exist in the real world. Example, products must be homogeneous. In the real world market, there exists much product differentiation for most goods sold. E.g cars, clothing etc.

4) Absence of supernormal profit in the long run implies that there is low levels of R&D and hence lack of dynamic efficiency.

5) Some industries are more efficient with a single firm operation. E.g natural monopoly such as the railway industry where a high MES is needed to operate.

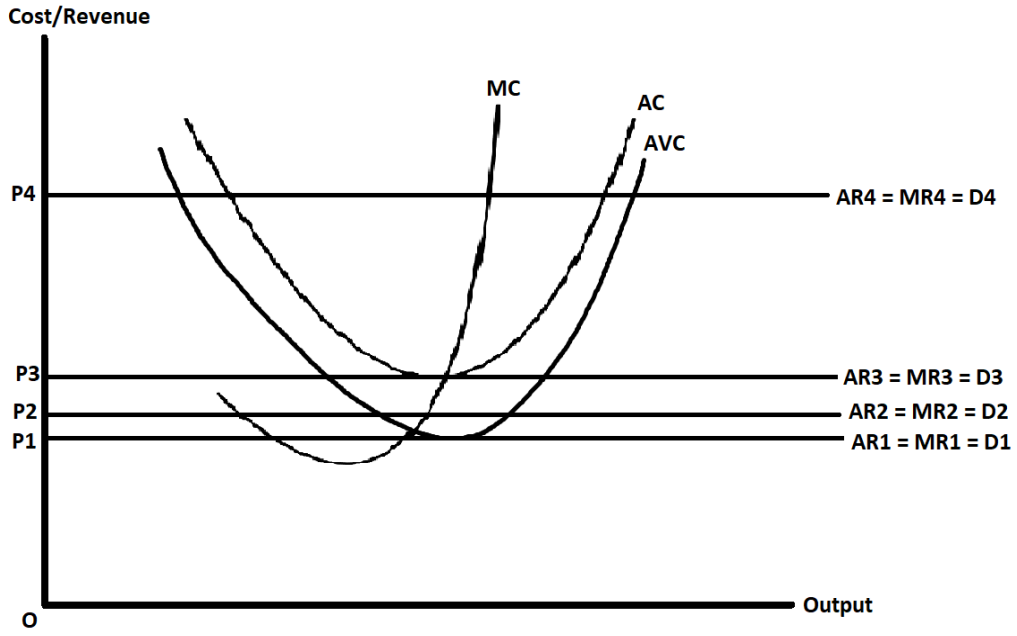
Extra diagrams :



Short-run and Long-run Shutdown Points

Loss Making firm :
A loss-making firm is one which is unable to cover its cost of production and is earning less than its normal profits. i.e. AR < AC
The decision on whether to shut down or not depends on whether losses are short-run or long run.

Short-run shutdown rule :



- In the short-run, a firm will continue production even if it is making losses as long as it can cover its variable costs. i.e. AR > AVC or AR = AVC. In the diagram, P_1 is the minimum price up to which the firm can continue production.

- Price P_2 will allow the firm to make some contribution to its fixed costs. The firm will be better off continuing to operate as they will be reducing the size of their losses.

- Therefore, the short-run shutdown point is AR < AVC

Long-run shutdown rule :

- P3 shows where normal profit is made. i.e. AR = AC. Normal profit is the minimum profit level required to keep the firm in the industry in the long run.

- Therefore, in the long run, firms will shutdown if AR < AC ; where loss markets will exit the industry.

Evaluation :

1) The firm may be pursuing predatory pricing, therefore, they may continue producing whilst making a loss until other firms leave the market.

2) If the firm is a part of a conglomerate, then it may be cross-subsiding the product, and cover losses with profits from the sales of other goods.

3) A start-up firm may not have a profit incentive in the short-run and will accept losses as its objective is survival.

4) The economy may be in recession and demand for the firm's products may rise once the economy recovers. The firm may be able to borrow funds from the financial sector to enable it to continue at least in the short-run.

   Conclusion: Private sector firms may survive if they receive financial support from the government or is able to reduce costs or draw upon previous profits, whereas, public sector firms are able to run at a loss as there is no profit incentive.

Question answer format →

- Define : total cost, average cost, average variable cost, marginal cost
- Write the entire chapter with evaluation

MONOPOLY

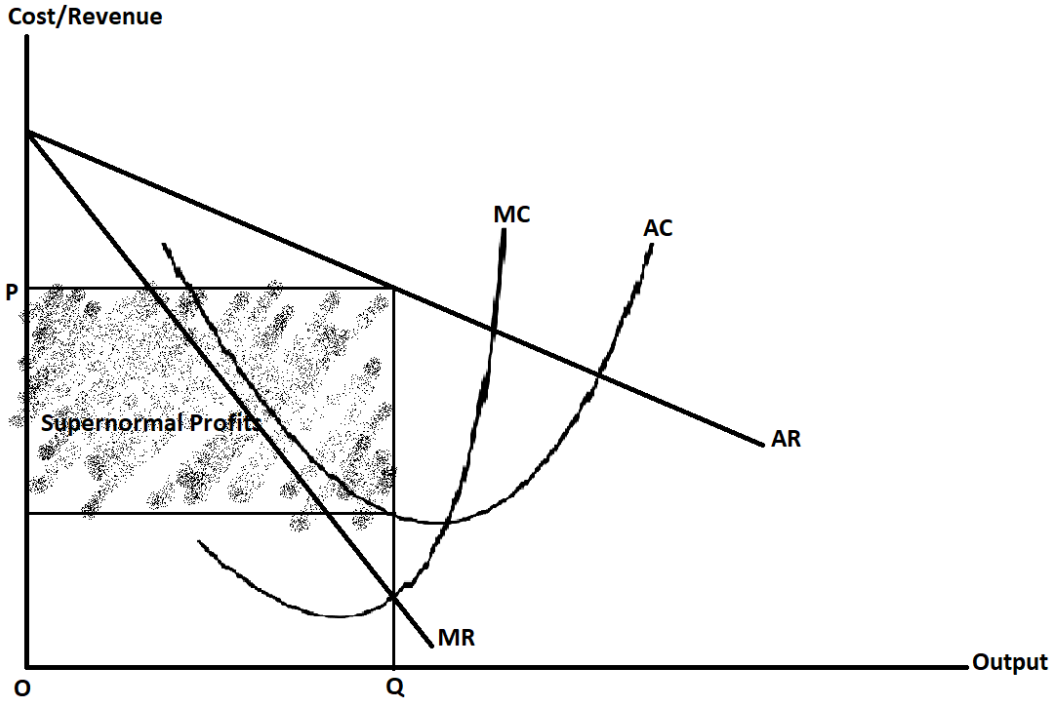
Pure monopoly :
A pure monopoly is a single supplier of a product or service in a market.

Legal monopoly :
When a single firm controls 25% or more of a particular market, it is known as legal monopoly.

Market characteristics :

- Only one firm in the industry
- High barriers to entry & exit
- Unique product
- Imperfect knowledge
- Price maker

Profit-maximizing monopolist :



Monopoly & Efficiency :

- Allocatively inefficient as they produce at MC = MR and not where P = MC
- Productively inefficient since they do not produce at MC = AC

Advantages of Monopolies :

1) Monopolies have greater potential for dynamic efficiency. Supernormal profits can be used to finance more research & development, which can lead to innovative and better quality products.

2) A monopolist may be able to cross-subsidise loss-making parts of its business and cover the losses with the supernormal profits made in other parts of the business. This increases consumer choice. E.g rural bus services

3) Monopolies are large firms and have a greater capacity to be productively efficient and achieve economies of scale. The fall in LRAC may cause the price to fall for consumers, improving consumer welfare.

4) Price discrimination by a monopoly may benefit some consumers who pay a lower price. Furthermore, regulation may ensure efficient operation of monopolists.

5) If the monopoly is a natural monopoly it is more efficient to have a single seller in the market achieving economies of scale, than to have firms competing.

Disadvantages of Monopoly :

1) Monopoly power means higher price and lack of choice as there is no competition.

2) Monopolists tend to be allocatively and productively inefficient.

3) Lack of competition means there is less incentive to be efficient. This results into X-inefficiency resulting in higher costs and higher prices.

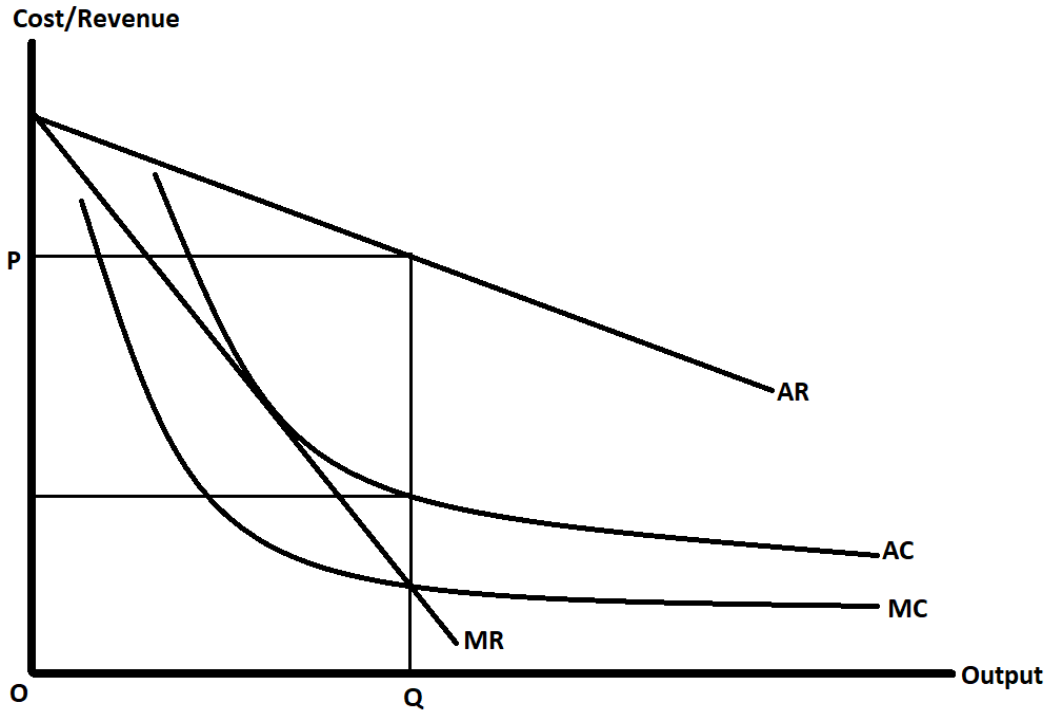
4) Profits may be used for dividends rather than for investment and innovation in the products or services of the business.

5) A monopoly may also have monopsony power in employing workers and buying products. This means the firm can pay workers lower wages and pay suppliers lower prices.

Conclusion : Overall the size of benefit or problems for customers depends on the level of government regulation.

Natural monopoly :
A natural monopoly exists when a single firm can supply a good or service more efficiently than could two or more firms. E.g railway

- It is an industry where the minimum efficient scale occurs at very high levels of output and so there is room for only one firm to fully exploit economies of scale.
- A natural monopoly has high sunk costs as there is enormous fixed cost of establishing infrastructure and network. They deter entry of new firms.
- Therefore, it may be more efficient to allow only one firm to supply to the market because allowing competition would mean a wasteful duplication of resources.



Railway is an example of a natural monopoly. Railways are often considered a typical example of a natural monopoly. The very high costs of laying track and building a network, as well as the costs of buying or leasing the trains, would prohibit, or deter, the entry of a competitor.

AR-MR CURVES & AC-MC CURVES

Shifts of AR/MR curve (Increase/Decrease in demand) :

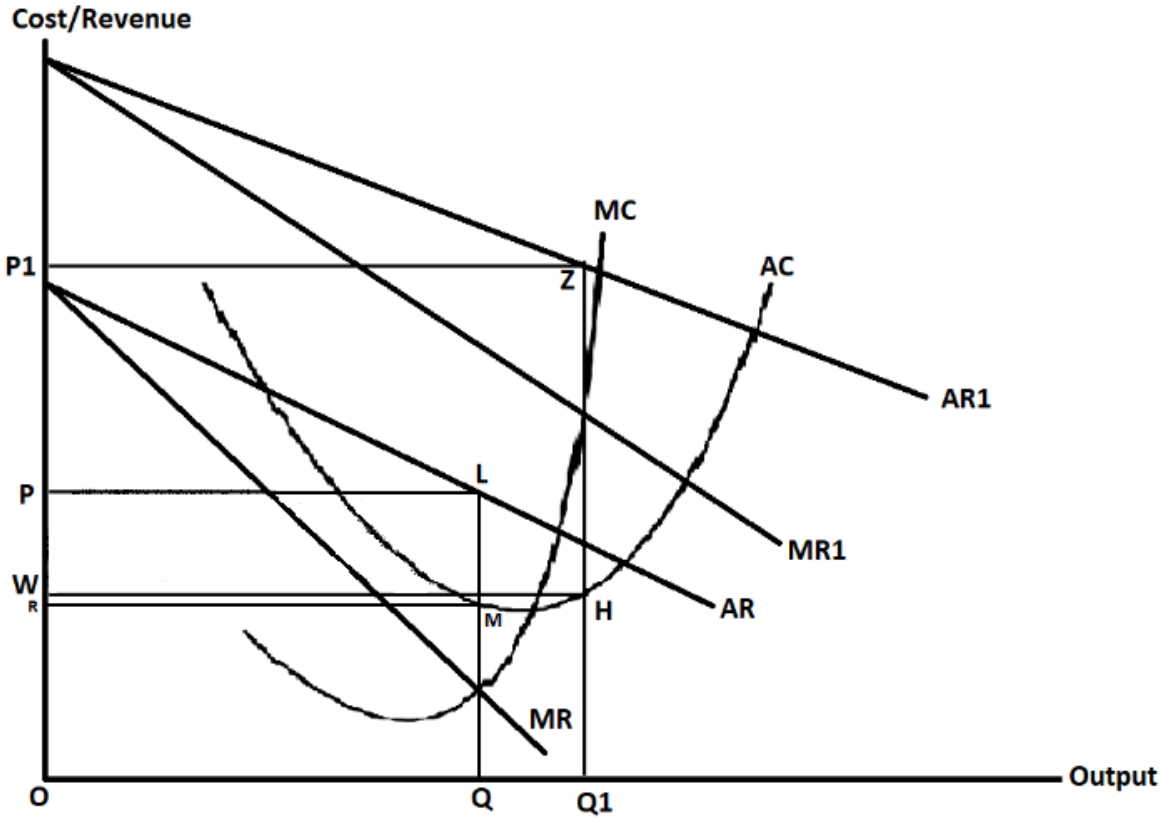


Fig : **Increase in demand**

Old supernormal profit = PLMR
New supernormal profit = P_1ZHW

Shifts of AC-MC curve (Changes in costs) :

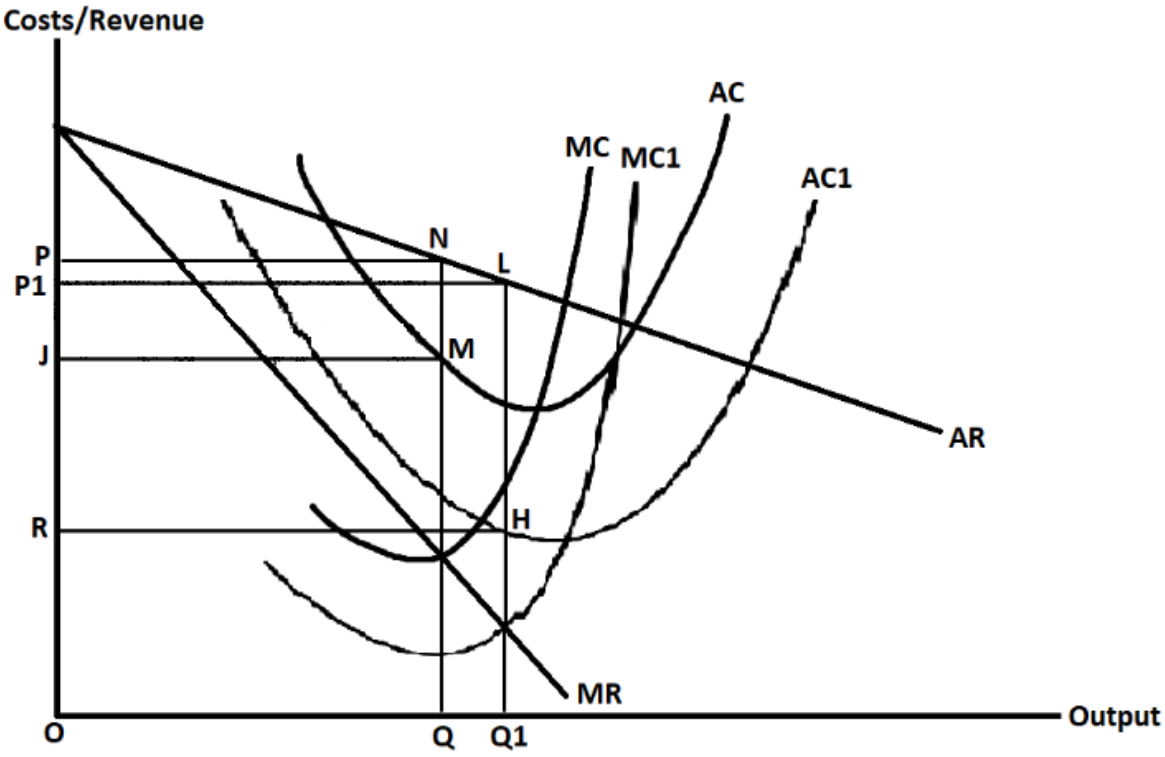


Fig : **Decrease in Costs**
Old supernormal profit = PNMJ
New supernormal profit = P_1LHR

Note :

- FC → AC
- VC → MC
- MC → AC

MONOPOLISTIC COMPETITION

Market characteristics :

- Many small firms producing a slightly differentiated product
- Imperfect market knowledge
- Low barriers to entry and exit
- Firms are price makers due to product differentiation

Examples : Furniture makers, restaurants, clothing manufacturers

Product differentiation :
Product differentiation allows firms to set their product apart from the competition.

Use these in Lu3

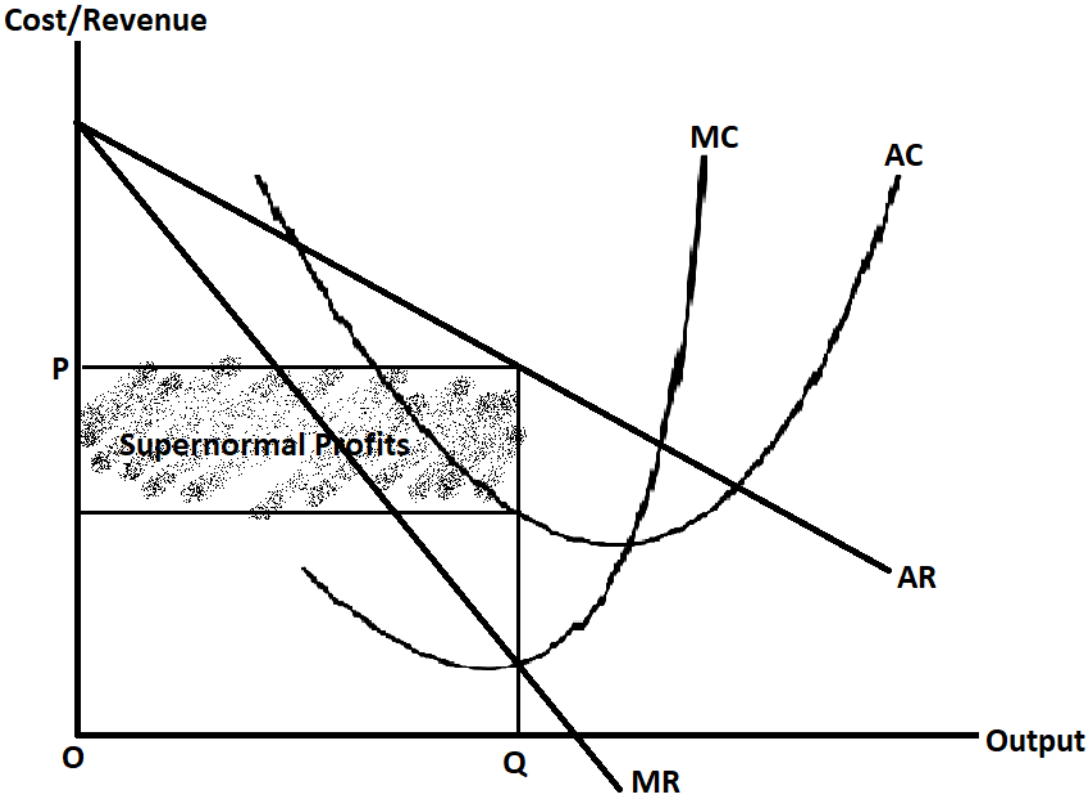
Types of differentiation :

1) Physical differentiation :
   Where firms use size,design, color, shape, performance and features to make their products different. For example - consumer electronics can easily be physically differentiated.

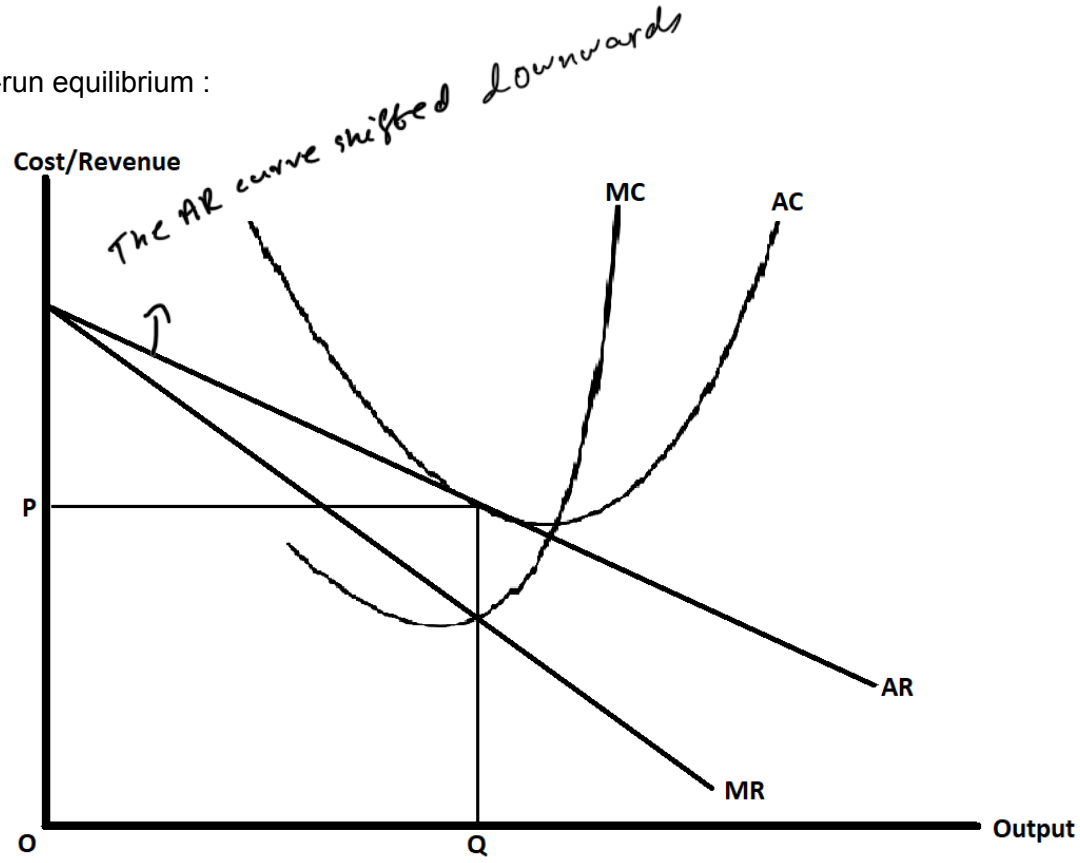
2) Marketing differentiation :
   Differentiation by distinctive packaging, advertising and other promotional techniques. For example - breakfast cereals can easily be differentiated through packaging.

3) Distribution differentiation :
   Where the method of getting the product to the customer is different to competitors. For example - a firm selling clothes may only sell online whereas another may only sell through physical shops.

Short-run equilibrium :
Firms earn supernormal profits as they aim for profit maximization by operating at MC = MR



Long-run equilibrium :



- Short-run supernormal profits will encourage new firms to enter the market.
- Firms can easily enter the market due to lack of significant entry barriers.
- The new entrants will partly reduce the demand for an existing firm's product.
- This means that the AR curve will shift to the left until it is tangential to the average cost curve (AR = AC) where only normal profits will be made in the long run.

Efficiency :

- Productively inefficient in the short-run and long-run as output is lower than the minimum point of the AC curve (MC ≠ AC at Q)
- Allocatively inefficient in the short-run and long-run as P ≠ MC at Q

Benefits of Monopolistically competitive market :

Benefits to Firms :

I don't get this.

1) Firms face a downward sloping AR curve; demand curve is not perfectly elastic like perfect competition. Thus they are price makers and not a price taker. Hence, firms are able to raise prices above that which would apply under perfectly competitive conditions.

2) Firms have a certain degree of market power due to product differentiation. This can make the firm's product more price inelastic in demand and create consumer loyalty, thus allowing them to raise price while retaining some of their customers.

3) Short-run supernormal profits may allow firms to fund for more R&D which may lead to greater product innovation. Thus firms are likely to gain dynamic efficiency.

Benefits to consumers :

1) Consumers benefit from greater choice and variety since there are many firms and products are differentiated.

2) Some product differentiation can be of greater value for consumers such as those based on locations as they offer more convenience.

3) Low barriers to entry means there are many small firms who have little market power. Hence, prices are likely to be lower in the long run, compared with monopoly with only normal profit being made in the long run.

4) Consumers may also benefit from more product innovation which will increase their utility.

Evaluation :

1) Firms earn normal profits in the long run which can act as a barrier to innovation.

2) Firms are small and have very limited market power due to a large number of close substitutes.
3) Advertising by a large number of firms under monopolistic competition may be expensive and not compensated for by a sufficient rise in revenue. It can also increase the final price, reducing consumer surplus.

4) A large number of different brands under monopolistic competition may lead to confusion for consumers and lower sales.

PRICE DISCRIMINATION

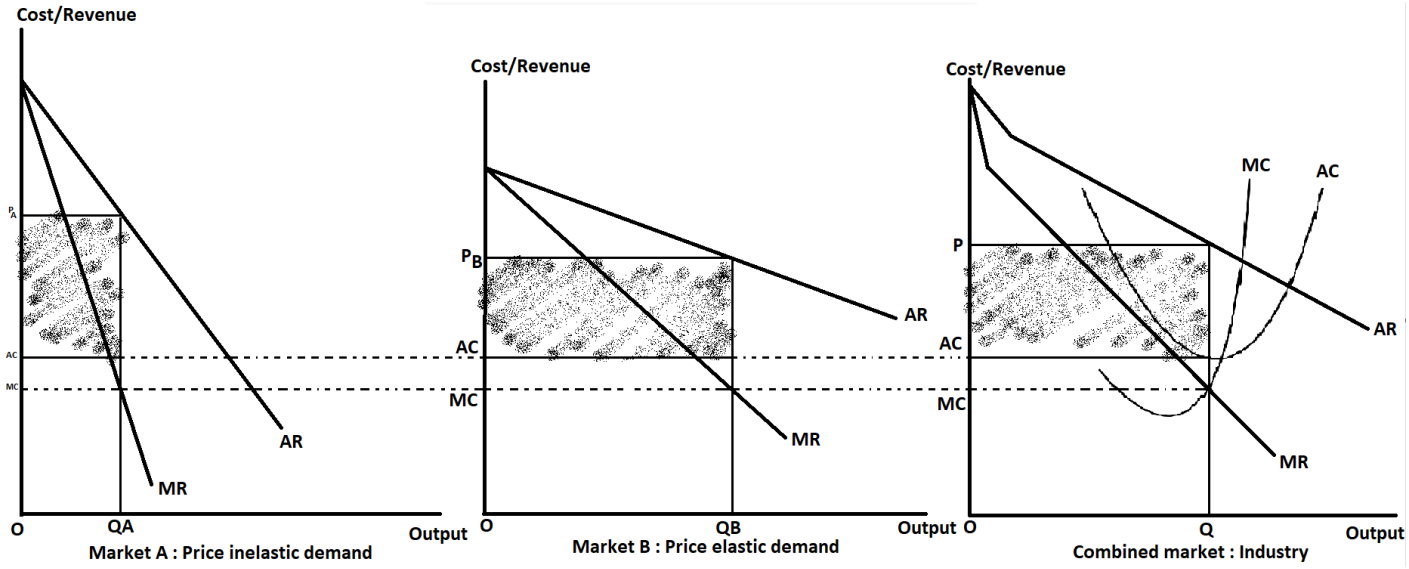
Price discrimination (Third-degree) :
Price discrimination occurs when a firm charges different prices to consumers for the same good or service for reasons not associated with the costs of production. E.g sale of child & adult railway tickets, airline tickets, hotel rooms

Conditions necessary for third-degree price discrimination :

- A degree of monopoly power :
  The firm must have some price setting power.

- Differing elasticity :
  The firm must be able to identify two separate markets with differing PED - one with price inelastic demand and the other with price elastic demand.

- Prevent arbitrage :
  The firm must be able to prevent arbitrage (no resale possible between consumers).



- The profit maximizing firm will produce where MC = MR
- Consumers with a price inelastic demand will be charged a higher price of OPA and output will be OQA (market A). e.g transport at peak times
- Consumers with a price elastic demand will be charged a lower price of OPB and output will be OQB
- Thus, the total profit made will be higher compared to the combined market.

Benefits to firms :

1) It allows firms to increase overall revenue and profits. This can lead to higher dividends for shareholders.

2) Producers are able to extract consumer surplus and turn it into producer surplus.

3) Overall increase in output in both market segments allows firms to benefit from lower LRAC due to economies of scale.

4) It may allow cross-subsidization of different business activities to avoid losses. For example, train companies can use profits from peak time travel to subsidize off peak travel.

5) Higher supernormal profits can be used for investment and R&D. This can improve dynamic efficiency and increase long term competitiveness in the market.

6) Lower prices in the elastic market segment will make the market less contestable, reducing the threat of competition.

Evaluation :

1) It will be difficult to maintain the conditions of price discrimination in the long-run if it leads to the entry of new firms into the market. This will determine the extent to which the firm can earn higher revenue/profits.

2) The firm's ability to price discriminate will be diminished if there are price controls set by regulatory bodies. E.g. maximum price.

3) The increase in cost of keeping markets separate could exceed the additional revenue from price discrimination.

4) Consumer exploitation in the price inelastic market could attract the attention of the regulators who may influence and take actions such as fines.

Benefits to consumers :

1) Consumers with price elastic demand will benefit from lower prices which will increase their consumer surplus. This will be of particular benefit to low income groups.

2) Higher profits encourages more R&D and further investment by firms which can improve quality and possibly lower prices due to effects of dynamic efficiency.

3) Higher revenue and the ability to cross subsidize may result in more choice of products or services. E.g. makes it financially viable for a firm to supply a good or service during off peak times.

Evaluation :

1) Consumers with price inelastic demand will be paying higher prices. This will lower consumer surplus.

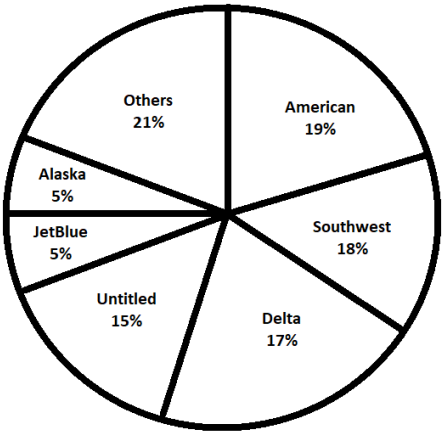
2) If price discrimination ends, the firm will earn lower profits and this may lead to a drop in product quality.

3) Monopoly firms are less likely to invest to increase efficiency because of lack of competition.

4) Market conditions may change overtime and can reduce the possibility of price discrimination. e.g . if barriers to entry are lowered, this will make the market contestable as other producers enter the market.

Oligopoly

Oligopoly :
An oligopoly is a market dominated by a few large firms. It is an industry where there is a high degree of market concentration.
Concentration ratio :
It measures the market share controlled by the ‘n’ largest firms.



US domestic flights, market share of airlines

Four firm concentration ratio is 69%

Market characteristics :

- A few large firms dominate the market
- Firms are interdependent meaning that the actions of one firm will affect the other firms directly
- Firms sell differentiated (branded) products
- High barriers to entry and exit
- Firms compete through non-price competition to avoid price war. E.g. high degree of advertising
- Collusion may occur

Game Theory :
Game theory shows the interdependent relationship of firms in an oligopoly market where decisions of other firms can affect the choices of individual firms. E.g .prisoner's dilemma.

		Firm X	
Firm Y		£2	£1.80
	£2	A Each gets £10m	B Firm Y £5m Firm X £12m
	£1.80	C Firm Y £12m Firm X £5m	D Each gets £8m

Game theory suggests that firms don't trust each other and although they know that it is mutually beneficial for them to collude to set the price at £2, they will tend to engage in a price war and set price at £1.80; resulting into lower industry profits.

Non-collusive oligopoly :

- Price war :
  Price war refers to a series of price reductions by firms in response to rivals' price cuts.

Collusive Oligopoly :

- Collusion :
  Collusion occurs when firms agree formally or informally to restrict competition among themselves (operate together or collaborate). They may fix prices or limit the output.

Types of collusion :

1) Tacit collusion : Tacit collusion occurs when firms collude without actually having communicated with each other. A common form of tacit collusion is price leadership where a major firm in the market sets the price and other firms follow.

2) Overt collusion : Overt collusion is undertaken through the formation of cartels where firms openly fix price and output quota of each firm. E.g. OPEC

Reasons for collusion/Impact of collusion :

Impact on firms :

1) Interdependence of firms in an oligopoly means that firms want to avoid price competition as it leads to price wars which damage profits. Collusion provides firms with the ability to fix prices and limit output. Thus, they can enjoy higher supernormal profits through joint-profit maximization within a market.

2) It reduces unpredictability and uncertainty in the market as firms are collaborating rather than competing against each other. This will prevent any unforeseen changes in price and reduce revenue instability. It allows the firms to achieve a more secure and larger market share.

3) Increased profits of firms and greater certainty may encourage firms to increase R&D leading to improved higher long-run profits.

4) Collusion raises artificial entry barriers which discourages new firms from entering the market. It makes the market less contestable.

5) Collusion may be a rational strategy if any potential fines and legal costs are likely to be lower than the extra profit gained.

Evaluation :

1) Exposure of price fixing by the government or other regulatory agencies can cause the agreements to end.

2) Investigations by the government may lead to high legal costs faced by the firms. Firms may face heavy fines and directors imprisoned since it is illegal.

3) Tacit collusion may occur as it is very difficult to prove by the competition authorities.

4) Adverse publicity following investigations could cause long term damage to the reputation of the firms and lead to a fall in consumer demand.

5) Game theory suggests that firms should rather compete using non-price methods such as special offers, loyalty schemes as collusion may break down and result into a price war.

Impact on consumers :

1) Restrictions of output could mean less choice for consumers.

2) Firms may restrict their R&D budget so quality of the products may be low.

3) Collusion leads to a lower consumer surplus as prices are higher than a competitive market.

Evaluation :

1) Increased profits and greater certainty may encourage firms to increase R&D leading to improved products for consumers. Although consumer benefits from R&D are likely to apply mainly in the long run.

2) Consumers will see more stability in the market as firms are less likely to leave the market and output will be more assured.

3) Impact on consumers depends on the value of PED. e.g. if there are substitutes available, then consumers may switch to alternatives following a rise in price.

METHODS OF COMPETITION

Price competition :

1) Price war :
   Price war refers to a series of price reductions by firms in the market in response to rivals' price cuts.

2) Predatory pricing :
   When a firm sets price below average cost and incurs short term losses in order to force rivals out of the market. However, predatory pricing is illegal so there might be fines.

3) Limit pricing :
   This involves cutting the price to the point (just above AC) where new possible entrants would make a loss. The price set and supernormal profits earned are quite low which deters new entrants.

A price reduction using limit or predatory pricing may achieve strategic benefits, such as gaining market share or deterring entry. This can increase revenue of the firms in the long run.

Non-price competition :

1) Advertising :
   - An increase in advertising will inform and persuade consumers to buy the firm's products. This will lead to an increase in demand.
   - Advertising expenditure increases entry barrier since it puts pressure on new entrants to spend substantial amounts on advertising to compete.

2) Branding :
   Branding helps consumers to differentiate a product from others in the market and make more informed choices. If firms can increase brand loyalty, they can attract and keep customers which will increase their market share.

3) Quality :
   Improving quality such as design, features, performance and durability will retain as well as attract more customers.

4) Product placement :
   Product placement refers to the art of placing your products in movies, games or books so that they receive more visibility from the audience.

5) Endorsement :
   Some firms pay famous people to see their products and feature in their advertising. This encourages consumers to have faith in the brand as being of good quality, which leads to brand loyalty and higher sales for these firms.

6) After-sales service :
   After sales service plays an important role in customer satisfaction and customer retention. It generates loyal customers and increases brand value.

7) Loyalty schemes

Evaluation :

1) The high costs of advertising and promotion could be passed on in the form of higher prices. Similarly, the range of promotional deals may be confusing for consumers.

2) Non-price strategies may be expensive to sustain. Advertising and promotional activities represent high sunk costs for firms.

MONOPSONY

Monopsony :
A monopsony exists when there is one buyer (or a few dominant buyers) of a good or service in the market. Example - Electricity generating firms can negotiate lower prices for coal and gas supply contracts.

Benefits of Monopsony :

To consumers :

1) Consumers may enjoy lower prices as a result of bulk purchasing by the monopsonist. E.g. Large supermarkets have monopsony power when buying supplies from farmers and other suppliers which can lead to lower retail prices to consumers. This will increase consumer surplus.

2) High profits of monopsonists may result in more investment in R&D resulting into better quality goods & services.

Evaluation :

1) A monopsonist may not pass on the benefits of low costs to the consumers in the form of low prices.

2) Choice for consumers could be limited as monopsony acts as a barrier to entry for new firms.

3) The supplier may have to lower quality to lower its costs to remain profitable.

To firms :

1) Lower purchasing costs means firms will enjoy higher profit margins. This will increase producer surplus.

2) Lower prices charged to consumers can make the firms more competitive and result in greater market share.

3) There is less likelihood of competitors entering the market as existing high market share acts as a barrier to new firms.

4) Firms will have greater control of the market as they dictate terms to suppliers in terms of quality and delivery schedules.

Evaluation :

1) Monopsonists pay lower prices and impose strict conditions on suppliers such as delivery times, quality of output. Their power over suppliers may result into lower profits and force some suppliers to exit the market.

2) If suppliers exit the market, it can increase the risk of disruption in the supply chains of supermarkets in the long term.

3) Lower profit margins of suppliers can lead to less reinvestment and this could mean that the monopsonist might face difficulties in getting supplies in the future.

4) Suppliers may respond by cutting production costs. For example - they may lower wages and provide poor working conditions for workers. They may also ignore environmental protection measures. This can lead to poor quality products and worsening economic welfare.

Positive impact on suppliers :

1) Other suppliers may benefit in the form of longer term contracts leading to potentially higher revenue and profits. Less time and resources will be spent on looking for customers.

2) Suppliers who keep costs low and can adapt can survive. Small suppliers may merge to counter monopsony power.

CONTESTABLE MARKET

Contestable market :
A contestable market is a market with low sunk costs and low barriers to entry & exit.

Impact of an increase in contestability on firms' behavior :

1) Hit & run competition :
Since contestable markets have low sunk costs and low barriers to entry & exit, the industry may suffer from "hit and run" competition whereby firms enter when supernormal profits are high and exit when profits fall.

2) Firms will attempt to raise artificial barriers to entry to prevent hit and run competition and reduce contestability. They may use limit pricing where incumbent firm intentionally sets a lower price and makes lower supernormal profits to discourage new entrants.

3) They may also raise artificial barriers to exit to increase sunk costs and reduce contestability. This includes heavy advertising to encourage more brand loyalty.

4) Incumbent firms will try to become more efficient and competitive in terms of price, output and quality as many substitutes of the products are available in the market.

5) They will try to minimize costs and operate close to the minimum point of the AC curve to achieve productive efficiency. They will also try to achieve greater allocative efficiency by operating close to P = MC

6) They may fund for R&D to improve product quality and innovate so that they can offer better products compared to rivals and retain their market share. This will increase dynamic efficiency.

7) They may use non-price competition methods such as loyalty schemes, better customer service to make demand for the firm's products more price inelastic. This will make the firm's revenue less vulnerable to new entrants who may under-cut the incumbent.

8) With high levels of contestability, firms may decide to switch from profit maximization to earning only normal profits at AC = AR in the long run to deter potential entrants.
9) Diagram

Evaluation :

1) The presence of government regulation such as competition policy might mean that firms are already behaving in a competitive manner.

2) Limit pricing will reduce supernormal profits and lower the funds available for R&D. This can lower the quality of the firm's products in the long run.

3) The impact depends upon the degree of contestability. E.g. Big TNCs may hold a large market share and may not respond by taking different policies as their market share is not threatened.

4) In markets where firms enjoy strong brand loyalty, they may continue to keep prices high.

Conclusion : The dynamic nature of the market may make markets more contestable in the long run. E.g the internet has made many markets more accessible for smaller firms.

Signs of high level of contestability (look for them in extract) :

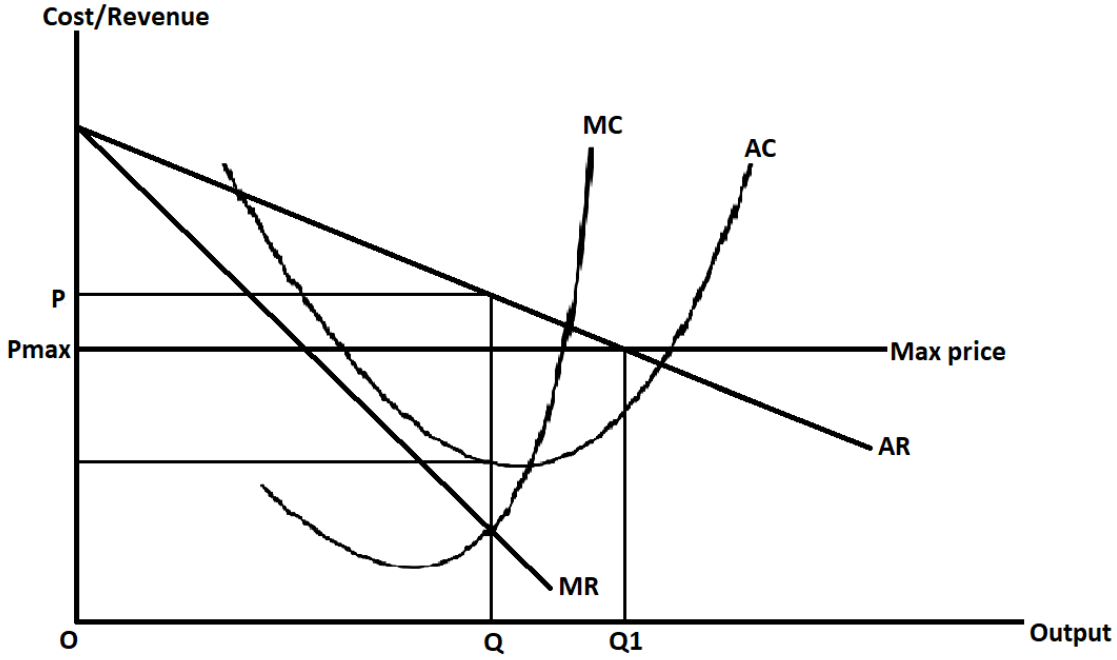
- Low levels of supernormal profits
- Low barriers to entry & exit
- Large number of firms in the market / low concentration ratios
- Low sunk costs
- New firms entering or existing firms leaving the market
- Decline in market share of large firms

A ASK yourself what kind of a market the extract mentions

MEASURES TO CONTROL MONOPOLIES & MERGERS

1) Maximum Price :

Government may set a maximum price to prevent monopoly firms from charging consumers excessive prices. A maximum price is a price ceiling above which firms cannot charge consumers.



The introduction of the price cap at P_{max} stops the monopoly charging a price at P reducing the level of supernormal profits and producer surplus made.

Evaluation :

Price control may reduce profits leading to the companies having insufficient funds for investment. Some firms may exit the market. Hence, less choice for consumers and possibly more market dominance by the largest companies.

2) Profit regulation :

Governments may place limits on profit levels or profit margins of the monopolist to prevent them from exploiting consumers. Any profit earned above the limit is taxed at 100%

Evaluation :

Limits on profit might reduce investment and have an adverse effect on dynamic efficiency as there is no incentive to make efficiency gains past a certain level.

3) Quality standards :
Governments may set and observe quality standards to ensure that the monopolist does not provide poor quality goods and services to the customers.

Evaluation :
Ensuring regulatory compliance and quality standards can increase costs for firms. This could lead to lower profits and less funds for R&D which can reduce dynamic efficiency. Some businesses may also exit the market.

4) Performance targets :
Government sets a goal for the firms to achieve which are then monitored and can lead to fines if not fulfilled.
These may be based on improvements in the quality of customer service, reductions in the number of customer complaints etc.

5) Referral to regulatory authorities :
Governments may pass laws that allow a monopoly to be investigated by the regulatory authorities if they exploit consumers or engage in anti-competitive practices. The company may have to pay a fine or charge if its business practices are found guilty.

6) Legislations to control mergers & takeovers :
The competition authorities will investigate large mergers and may prevent the merger from going ahead if it is likely to create a larger firm with monopoly power.

Evaluation :
Some firms such as energy companies may need to be large to fully benefit from economies of scale (MES is at a high level of output). Government policies which aim to restrict the size of the company may lead to inefficiencies and higher prices for consumers.

7) Laws against collusion :
Governments can pass laws under their competition law making collusion illegal. The punishment for collusion can include fines or imprisonment. This will act as a deterrent for firms from engaging into such anti-competitive behaviors and promote price competition in the market.

Evaluation :
Fines imposed may not be a deterrent if benefits of collusion outweigh financial costs for firms. Furthermore, it may be difficult to prove cases of collusion especially if it is tacit collusion.

Limits to government intervention / Evaluation :

1) Regulatory capture :
   Government intervention has the risk of regulatory capture. This is when regulators start working in favor of the firm rather than the interests of consumers.

2) Asymmetric information :
   The effectiveness of government intervention may be limited by asymmetric information. Firms are likely to hold greater information about costs and levels of investment.

3) Inadequate resources :
   The regulator may have inadequate resources such as lack of staff and funds to effectively monitor and investigate anti-competitive practices of firms.

4) Lack of regulatory power :
   If regulators have limited legal powers to enforce punishments or fines then the monopolists will carry on their anti-competitive practices.

Measures to promote competition & contestability :

1) Tax incentives and grants to promote small businesses and FDI :
   Governments can take measures to increase the number of small businesses in order to increase competition in the market. This can into tax incentives to new and existing small firms, training and grants to new entrepreneurs.
   Measures to encourage FDI can include tax exemptions, lower interest rates, investment in modern critical infrastructure etc.

   Evaluation :
   Encouraging new firms to enter the market may have little impact where incumbent firms are large and powerful.

2) Deregulation :
   Deregulation involves the process of removing unnecessary and costly rules and regulations from markets and encouraging the entry of new firms. Deregulation can improve economic efficiency through increasing competition by making the market more contestable and lead to greater consumer choice.

   Evaluation :
   There are still likely to be significant barriers to entry & exit in some industries, particularly in terms of incumbent firms benefiting from economies of scale, monopsony power, consumer loyalty and this limits competition.

3) Privatization :
   Privatization involves the transfer of public sector firms to the private sector. Privatization promotes competition in the market as firms have to be efficient to make profits. This competitive pressure improves product quality and reduces prices.

4) Competitive tendering for public sector contracts :
   Competitive tendering refers to the process where private firms bid for the right to run or gain a certain contract for the provision of a good or service to the public sector. Competitive tendering forces suppliers to compete and the contract is awarded to the firm who is most efficient and is offering a relatively low price.

5) Trade liberalization :
   Trade between countries without trade restrictions or reductions of trade restrictions is known as trade liberalization. Lower trade barriers will increase foreign imports to the country and force local firms to be efficient and provide goods at competitive prices.

Impact of the range of government measures on business behavior :

1) A more competitive market is likely to reduce existing firms' market share and hence their price making power. This will lead to lower prices, higher consumer surplus and more choice for the consumers.
2) It is likely to reduce the supernormal profits of the firms.
3) Likely to lead to new products, more innovation and improved product quality.
4) Increased productive, allocative and dynamic efficiencies; reduced X-inefficiency of firms.

GOVERNMENT INTERVENTION TO PROTECT SUPPLIERS

1) Local sourcing of raw materials and components :
   Government can force firms to use a minimum amount of raw materials and components that are sourced locally from domestic manufacturers. This prevents the firm from using a large amount of imported raw materials or components in the products and therefore protects domestic firms.

2) Barriers to entry of foreign firms :
   Governments can limit or prevent entry of foreign firms to an industry by raising barriers to entry. This can be done through various controls such as -
   - Legislative limitations on new firms
   - Strict licensing requirements
   - Special tax benefits to existing firms

3) Restrictions on monopsony power of firms :

A monopsony has considerable market power to reduce the prices they pay to their suppliers. To restrict the monopsony power of firms government may -

- Set up a minimum price which is a legal price floor below which suppliers such as farmers cannot be paid
- Set up competition authorities to monitor the abuse of monopsony power in markets and protect suppliers.

4) Joint ventures with local businesses :

A joint venture occurs when two or more businesses join together to pursue a common project by sharing their resources.

The government may pass laws that require foreign firms to engage in a joint venture with local firms in order to conduct business in that country. This will benefit the local suppliers to grow and expand.

5) Improvements to the infrastructure such as ports, electricity, communication, roads and highways will reduce business costs for firms.

Effects of the policies :

- Suppliers will receive a fair price
- These policies will prevent suppliers from leaving the market, allowing them to grow large, enjoy economies of scale, protect jobs and contribute to higher GDP in the economy.
- Employees of the suppliers will receive better wages and working conditions.

Evaluation :

1) Such policies and regulations require enforcement, monitoring and administrative resources of the government. This can increase pressure on public finances, increasing the burden on taxpayers.

2) Success of these policies will depend on the ability of the firms to adapt and grow to withstand the unfair practices as some government support may not be feasible to maintain in the long run.

3) Consumers may suffer as increased regulations or reduction in monopsony power could mean higher prices. This will reduce consumer surplus.

Conclusion : Despite costs incurred in the short-run, the economy will benefit in the long term in the form of more internationally competitive firms, economic growth and employment.

LABOR MARKET

Factors that influence the demand for labor :

1) Demand for the final product :
   Demand for labor is a derived demand which means that the demand for labor is dependent on demand for the final goods & services that they produce. Businesses will demand more labor if there is a high demand for the goods and services they produce. E.g. at times of economic boom

2) Productivity of labor :
   An increase in labor productivity due to better skills would increase the demand for labor.

3) Price of the product :
   The demand for labor will increase when the price of the final product increases because it will be more profitable for firms to supply the product.

4) Relative price of capital :
   If labor costs rise relative to the price of machinery, then firms are likely to replace labor with capital.

Elasticity of demand for labor :
It measures the responsiveness of quantity demanded for labor to a change in the wage rate.

$$\textbf{Elasticity of demand for labor} = \frac{\%\,\Delta\,\text{QD for labor}}{\%\,\Delta\,\text{in wage rate}}$$

Factors that influence the elasticity of demand for labor :

1) The PED for the final product :
   The more elastic the demand for the product, the greater is the fall in demand for it and hence for workers making demand for labor elastic.

2) The proportion of labor cost in total costs :
   If wages form a large proportion of total costs then demand for labor will tend to be elastic.

3) The ease & cost of replacing labor with machinery :
   If labor cannot easily be replaced with machines then the demand for labor will be inelastic.

4) Time period :
   Demand for labor is usually more elastic in the long run as there is more time for firms to change their methods of production and buy new labor saving machinery.

Factors that influence the supply of labor :

1) Size of the working population :
   The working population of a country is the number of people who are of the working age and are willing and able to work. An increase in the retirement age and a decrease in the school leaving age will increase the working population and labor supply.

2) Female participation rate :
   Improvement in child care facilities and greater equality at the workplace will increase the female participation rate. This will increase labor supply.

3) Net migration :
   A positive net migration; more people entering the country than leaving it may increase the supply of labor to a particular occupation.

4) Income tax :
   Higher income tax rate reduces the incentive to work. As a result, workers may choose not to work many hours thus reducing labor supply.

5) Level of welfare benefits :
   If government welfare benefits such as unemployment benefits are high then the supply of labor will be low in low paid occupations.

6) Government regulations :
   Government may support rules that set high qualifications for certain jobs; e.g medicine. This may reduce the supply of labor to a particular occupation.

7) Trade unions :
   If the trade union makes an occupation more attractive by bargaining for higher wages and better working conditions, then the supply of labor to that occupation may increase.

Elasticity of supply of labor :
It measures the responsiveness of the quantity of labor supplied to a change in the wage rate.

$$\text{Elasticity of supply of labor} = \frac{\%\Delta \text{ QS for labor}}{\%\Delta \text{ in wage rate}}$$

Factors that influence the elasticity of supply of labor :

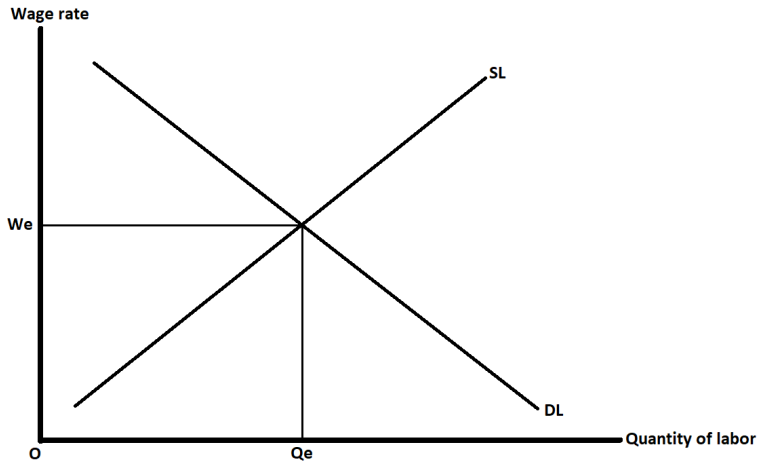
1) Skills, qualifications and experience :
   In low skilled occupations, labor supply is elastic because a pool of labor is available to take the job. The more qualifications and skills needed, the more inelastic will be the supply.

2) Time period :
   Supply tends to be elastic overtime. This is because it gives workers more time to notice changes in the wages and to gain any qualification or undertake any training needed for the job.

3) The level of unemployment in the economy :
   When unemployment is high, supply of labor is likely to be more elastic.

4) Higher mobility makes the supply more elastic

Wage determination :



- At a higher wage rate, lower quantity of labor will be demanded
- At a higher wage rate, higher quantity of labor will be supplied
- Wage rates will change whenever there is a change in the demand and supply of labor

MARKET FAILURE IN LABOR MARKET

Mobility of labor is the ability of workers to move from one occupation to another or from one place to another.

Market failure in the labor market results from geographical and occupational immobility of labor.

Geographical immobility :
When workers find it difficult to move from one area to another to seek and find work.

Causes of geographical immobility of labor :

1) Regional variations of house prices / Rent and the cost of living :
   Workers may find it difficult to move from a low house price region to a high house price region.

2) Family and social ties

3) Poor infrastructure

Consequences of geographical immobility of labor :

1) Higher wage rates will be paid in areas where there are unfulfilled job vacancies.

2) Firms will not be able to expand or fulfill contracts as they planned due to unfilled job vacancies.

3) Government support for the unemployed will be higher in high unemployment areas and lower tax revenue will be collected.

Occupational immobility :
When workers find it difficult to transfer from one occupation to another.

Causes of occupational immobility of labor :
The main reason for occupational immobility is lack of sufficient education, training, skills and work experience.

Consequences of occupational immobility of labor :

1) Occupations where there are skill shortages may have higher wages.

2) Structural unemployment will rise if people who lose jobs do not have the required skills for job vacancies.

3) This is a waste of economic resources, as workers who are willing and able to work remain unemployed.

Measures to improve geographical immobility :

1) Reforms to the housing market to improve the supply of affordable properties. E.g. relaxation of planning laws.

2) Offering housing subsidies to certain groups of workers where shortages exist. E.g. nurses, firefighters.

3) Improving infrastructure

4) Improve the knowledge of job opportunities available across the country to help individuals know where they could locate to find better work.

Policies to reduce occupational immobility :

1) Increasing the provision of training schemes especially for the unemployed. This improves the skills of the workforce enabling them to fill gaps in the labor market more easily.

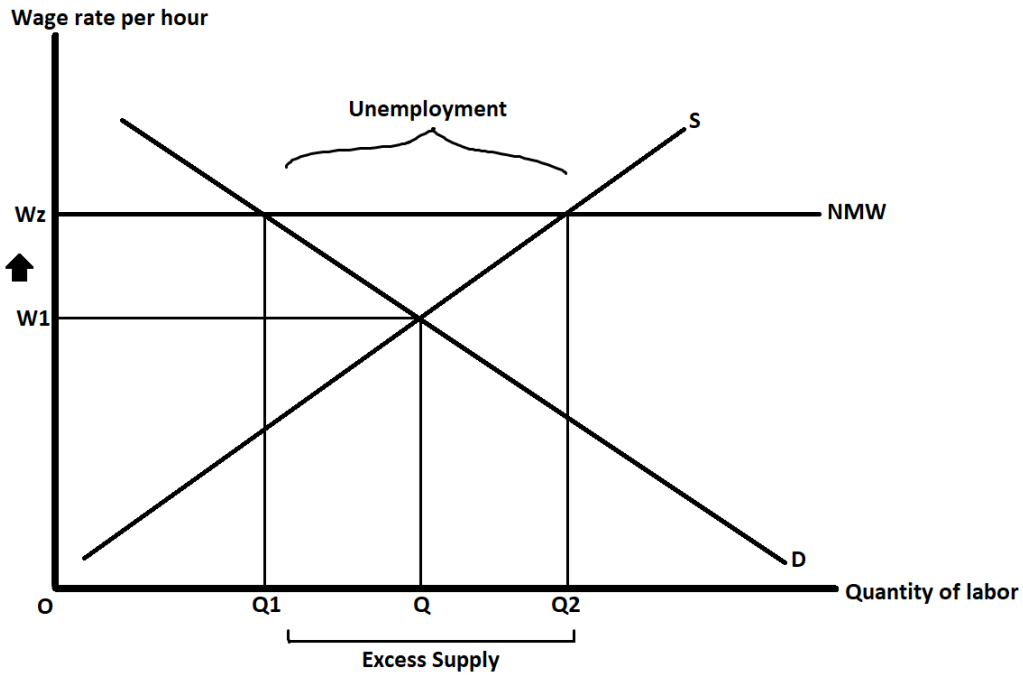
2) Increase the provision of vocational courses which offer training in specific work based skills

3) Increase in the provision of higher education. E.g. increasing access to student loans and limiting tuition fees.

GOVERNMENT INTERVENTION IN LABOR MARKETS / MEASURES TO PROTECT EMPLOYEES

To prevent exploitation, the government must pass a number of laws that safeguard staff :

1) Minimum wage legislation :
   Minimum wage is a legal wage floor set by the government below which workers cannot be paid. This will guarantee workers a minimum hourly wage rate.



- The minimum wage is set above the market equilibrium wage at W_2
- The quantity of labor supplied extends from Q to Q_2
- The quantity of labor demanded by employers contracts from Q to Q_1
- This leads to excess supply of labor and Q_1-Q_2 workers will be unemployed

2) Equal opportunity laws :
   Government may pass laws making it illegal to discriminate against workers based on race, gender, age or disability. Businesses must be careful to treat all workers fairly. They must offer equal pay and promotion opportunities for women and ethnic minorities.

3) Employment rights :
   All employees, full-time and part-time are entitled to have certain legal rights. Full-time employees are entitled to a minimum number of paid holidays annually. Part-time employees are entitled to a pro-rata amount. Redundant workers must receive compensation according to the number of years with the firm.

4) Health & Safety laws and regulations :
   All workers are entitled to work in environments where risks to their health and safety are properly controlled. Employers have a duty to consult with their employees on health and safety matters.

5) National insurance contributions :
   National insurance contributions are a direct tax on employing labor in the UK. Both the employer and the employee pay this tax. Payment of these contributions entitles the worker to pension, unemployment and sickness benefits.

Impact on business behavior :

1) Businesses will need to conform to the laws passed by the government. This means that they have to make changes to their current employment practices if any discrepancies exist. This could include rights for disabled workers, changes to recruitment processes and safety procedures, increase in wage rates.

2) Increased employment regulation will increase costs for businesses and they may be forced to reduce other costs. Example - Use of poor quality raw materials or may relocate to other economies where wage and non-wage costs are lower.

3) Businesses may pass on higher costs in the form of higher prices to the consumers which could lead to lower sales. They may choose to replace labor with capital in the long run if employee costs keep on rising. Higher costs will lower profit margins for firms.

4) There may be a rise in business corruption and unofficial business activities to avoid tougher laws.

Evaluation :

1) Businesses that comply with the legislation will have enhanced reputation and public image. Consumers will be assured that their money is doing some good and so demand for the firm’s product / service may not fall despite higher prices.

2) Legislation will apply to all firms including competitors. This means that cost will rise for all firms and so businesses may not lose market share.

3) Firms which are already complying to employment and safety laws may not require significant changes and so the impact on them will be minimal.

4) Better pay, working conditions and employment opportunities may improve worker motivation and lead to higher labor productivity. This could lead to a little or no rise in unit labor costs.

Predatory pricing diagram :